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A Follow-Up Study of the Graduates in the Academic Track at WSSB

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This study was conducted to discover the most significant factors associated with the present functioning and attitudes and the success of the adult outcomes of graduates of the Washington State School for the Blind in Vancouver, Washington.

The researchers assumed that WSSB had done everything feasible to prepare each student for a successful life, both in respect to the ability to lead an adequate socially active life and to develop as much independence as possible for a later profession or vocation.

The researchers hypothesized that type of education, sex, onset of blindness, degree of blindness and age would affect the later functioning of graduates in relation to success and independence. Graduates' func-

tioning, following completion of their education at WSSB, was the focus of the study.

The researchers considered a successful outcome to be directly related to 1) each graduate's feelings about his life situation, and 2) whether or not he/she believed hoped-for-goals were achieved. The researchers considered independence to be the ability of each graduate to lead an adequate socially active life, with primary emphasis upon the pursued vocation.

The hypotheses pertaining to success and independence were:

1) The type of education received will significantly affect the degree of success and independence among the graduates.
2) As related to the sex of the graduate, there will be a significant difference in the degree of success and independence achieved.
3) The degree of success and independence among the graduates will show a significant difference based on the onset of blindness.
4) Based on the degree of blindness, there will be a significant difference in the degree of independence and success among the graduates.
5) The current ages of the graduates will show a significant difference in the degree of success and independence.

Data was collected through personal interviews conducted by the researchers. A two-stage stratified random sample design was used to select a sample of fifty from a pool of approximately two hundred academic track students who graduated from WSSB between 1960 and 1975. From the selected sample of fifty, thirty-nine graduates were interviewed. Data was coded,

programmed and processed through an IBM Harris 220 computer and Cyber 73 CDC computer.

The hypotheses were tested by means of a multi-variate multiple regression and a multiple linear regression. The data analysis indicates that the independent variable, degree of blindness, predicted success to a higher degree than any other single variable. The negative correlation between degree of blindness and success implied that graduates who had a greater degree of blindness were more likely to view themselves as successful as compared to those graduates who had a higher degree of visual acuity. The criteria for success was the respondents' own opinion or view of their own success.

The independent variables, sex and additional education after graduation, also showed a significant relationship to success. The negative correlations between age and success and additional education and success indicated that the older graduates, as well as those who received more education after graduation, tended to feel less successful than the younger graduates and those who received less additional education after graduation.

No statistically significant relationship was found between success and the independent variables, sex and onset of blindness. The following variables were also tested for statistical significance in predicting success: year of graduation, vocational training, and where education was received prior to graduation from WSSB.

According to the criteria established by the authors to measure the degree of independence among the graduates, the majority were ranked as independent. No statistically significant relationships were found

between independence and any of the independent variables.

A total of 24 chi-square tests of association were made between variables. Four out of the 24 were found to be statistically significant at the $\alpha = .05$ level. This accounts for 17% of the total chi-square testing, which shows 12% more significance than the expected five percent. Four out of the 24 chi-square tests of association made between variables were found to be statistically significant. The chi-square tables showing significance were employment by sex, income by age, income by onset of blindness, and income by additional education received after graduation. The results of these tests indicate that women were more often unemployed than men, and that those who received a higher income tended to be older, became blind later in life, and received more education after graduation.

A FOLLOW-UP STUDY OF THE GRADUATES IN THE ACADEMIC TRACK AT WSSB

by

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and

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TO THE OFFICE OF GRADUATE STUDIES AND RESEARCH:

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CHAPTER I

INTRODUCTION

The history of educating blind children is a relatively short one. Less than 200 years ago, in 1784, Valentin Hauy founded the first school for the blind in Paris. In 1807, Russia established its first school for the blind. In 1832, not yet 150 years ago, the first schools for blind children in the United States were opened in Boston and New York (Lowenfeld 1974). The state of Ohio opened the first tax supported school in 1837. Other states followed the Ohio pattern. Presently there are fifty-one residential schools for the blind in the United States, most of them founded before 1900. (Only six schools were founded in the past 50 years.) A few states with sparse and scattered populations did not develop their own schools. Instead, they arranged to send some of their blind children to residential schools in neighboring states (Bledsoe 1971).

In these early years, blindness was considered to be such a serious sensory loss that only a specially developed school program could be expected to cope with the handicap. Early founders sincerely believed there was no other way of educating blind except to separate them from the sighted and to place them in special residential schools. Hauy, an outstanding educator of the blind, had strong convictions that curriculum content for blind children should be the same as curriculum content for sighted children. Although Hauy (1967) was convinced of the need to educate blind children, his expectations of them were

limited. He writes in 1786:

> No, we never pretend that those of the blind who even discover the most shining parts shall enter into competition, whether in the liberal sciences or mechanical arts, with scholars or artisans who are blessed with the use of sight, even when their talents rise not above mediocrity.

It would be interesting to know whether or not other early educators of the blind subscribed to Hauy's view.

Samuel Gridley Howe, M.D., first director of the Perkins School for the Blind, also was thought to have an especially strong influence and impact upon this field of education. Mr. Charles F. Campbell played a key role. He introduced into the United States some of the philosophic and educational concepts of his father, Sir Francis Campbell, of Great Britian. Charles Campbell became the chief and most successful advocate for what later became the American Foundation for the Blind (Bledsoe).

It was not until the second quarter of the 20th Century that educators became aware of the special psychological needs of visually handicapped children. This recognition found fuller expression when schools for the blind began to give attention to cognitive and conceptual development, communication skills, mobility, daily living skills and sex education.

Between the years 1940 and 1955, there was a rapid expansion in the number of residential schools for the blind, which also began to look in the direction of educating multi-handicapped blind children. In addition, there was growing recognition of the right of the visually handicapped to be treated as a part of rather than apart from society (Anderson 1976). This recognition, however, did not include any sugges-

tion that visually handicapped persons should attend regular public schools.

Then, in 1954, Chief Justice Earl Warren read the unanimous decision of the United States Supreme Court:

> Separate educational facilities are inherently unequal. In these days it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity for an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms (Supreme Court of the U.S., in Brown V. Board of Education).

Since the 1954 decision, societal forces have influenced and brought about changes both in residential schools for the blind and in regular public schools. According to Abel (1959) these forces were:

1) the increasing integration of the blind in society;
2) the supremacy of public school education in America, and;
3) the recognition of the importance of family life to the individual child.

In 1948, 10% of all blind children attended regular public schools. In 1957, it was reported that an estimated 40% of all blind children (total school population of 12,000 blind) attended regular public schools (Abel 1959). By 1963, more than 55% of all blind children attended regular day school programs. (Of a total student population of 17,091, there were 9,437 enrolled in day schools and 7,654 enrolled in residential schools.) In addition, approximately 1/3 of the visually handicapped graduates of residential and day high schools were attending a college or university (Dauwalder 1964).

Residential schools for the blind have had a tremendous influence upon educational programs for blind or visually impaired children but

because of changes in societal attitudes, there remains the question of the role of these schools today and in the future (Carroll 1961). The changing characteristics of residential schools for blind children and the increasing population of blind children in regular day schools created the interest and motivation for this research. Several underlying questions prompted this survey of students who graduated from WSSB. Did the changing philosophy of the school's program affect the lives of its graduates? Did curricula changes, between the years 1960 and 1975 make a difference in the success and independence of the graduates? What specific factors and conditions did graduates believe to be significantly important in helping them to reach their goals?

In this study, when the authors use the word "blind" the word includes legally blind, totally blind and partially sighted. (Refer to Chapter 2, Definitions of Terms and Concepts.)

I STATEMENT OF THE PROBLEM

Schools for the blind are responsible for developing both academic and vocational courses for the visually handicapped. They hope to provide the best possible educational preparation for their students. However, we have been able to discover only three very limited studies which attempted to evaluate how graduates of schools for the blind benefited from their education, whether or not they pursued further education and if they were able to secure employment or establish themselves in a profession.

The present descriptive study was undertaken for the purpose of

exploring factors which the authors assumed to be significant in helping to determine life situations and personal attitudes of graduates of WSSB and the degree of success and independence achieved.

Variables examined were:

1) type of education the graduate received;
2) sex of graduate;
3) onset of blindness;
4) degree of blindness;
5) age of graduate (at time of study).

During the course of the study, we discovered other variables which had a significant influence upon the adult outcomes.

We hope this information regarding those graduates who participated in the study will be of value to WSSB, will assist the school in assessing and measuring the effectiveness of its present program and will provide direction in planning future modifications.

II REVIEW OF THE LITERATURE

In order for individuals to become established in the world of work, education is needed to develop specific skills and to ensure acceptable social performance. Blindness or a serious visual handicap can place limitations on a person's vocational aspirations or success. However, visually handicapped individuals have successfully achieved in higher education, both in obtaining degrees and preparing for vocational careers. Some persons have relied upon adult services for the blind. Some have attained economic and social independence without assistance from adult services for the blind. Others have tried and

failed to achieve independence within the system.

A review of the literature showed that little research had been done in an effort to better understand the interactions of visually handicapped individuals with the sighted world. In 1968,a report from a Subcommittee on Rehabilitation, National Institute of Neurological Diseases and Blindness stressed the need for follow-up studies which would analyze the effects of services provided by different agencies and residential schools as these services affected visually impaired persons.

In 1964 a part of Dauwalder's study consisted of making a comparison between 200 graduates of a school for the blind with 40 alumni from other residential schools. The study evaluated the education, training, and placement of high school graduates. Curricula was examined. Dauwalder probed the attitudes of graduates and asked them to recommend ways they thought the educational programs in their schools could be improved to more satisfactorily prepare students for personal and social independence as well as for employment. No significant differences were found in the composite of the responses from the two groups surveyed. Some of Dauwalder's (1964) conclusions were, "Except in clerical, technical, professional, and a few job classifications, the income received by the visually handicapped high school graduates is considerably less than the income received by the sighted graduates, each performing the same type of work." He further found that 83.27% of all respondents were employed, 21.07% in sheltered employment. Over 85% of the graduates surveyed recommended that various types of vocational training courses should be available to students in high

schools. A comparison of the attitudes of recent graduates with the attitudes of those who had graduated ten years previously showed that recent graduates were more satisfied with their work. Recent graduates gave higher ratings to their preparation and to the total curricula of their schools than did those who graduated several years previous to the study.

Bauman and her Committee (1954) did an extensive study of 450 persons in six states - Pennsylvania, New Jersey, Delaware, Maryland, Virginia and North Carolina. The Committee compared two groups of visually handicapped persons: 1) those who, for at least one year, had been in gainful employment adequate for self-support, and 2) those who had not been gainfully employed for at least ten years. A third group, composed of individuals who had had employment but had not been satisfactorily employed, was also studied.

Although the study produced findings regarding education, training, and success in employment, the goal of the Committee was to inquire into all the factors which seemed to relate to adjustment to blindness and to attempt to measure how these factors contributed to total adjustment. The Committee found that "31.5% of the individuals who received all their education in a school for the blind were employed in professional work, while only 16.8% of those with no education in a school for the blind are in professions. On the other hand, 56.2% of those with no education in schools for the blind worked with their hands while only 31.6% of those with all education in such schools work with their hands. Perhaps it is because individuals who received specialized schooling are able to complete high school and go on to college, while those who did not get special help rarely benefited

from higher education." In summary, this study also showed that "many persons with very limited education felt they were successful in their work." There was some evidence that persons with a poor general adjustment were likely to doubt their competence and ability to perform a job.

In 1966, Bauman and Yoder followed up on Bauman's previous study. This later study involved 433 individuals. Its purposes were: 1) to learn what had happened since the original study; 2) to gather information on services subsequently received, and; 3) to determine what other changes had occurred in the lives of the respondents. Bauman and Yoder (1966) felt the most significant implication of their follow-up study was "a need to consider adjustment as something much more complex than merely adjustment to blindness. Stress is related to problems of blindness and needs consideration."

Kim (1970) investigated the widely held view that there are a large number of visually handicapped persons who socially interact with sighted persons and an equal number of visually handicapped persons whose social contacts are limited to association with other blind persons. To test the validity of these views, he studied 85 visually handicapped persons ages 20 to 75, known to the Minneapolis Society for the Blind.

Kim's (1970) basic premise was "that the physical disability of blindness itself and the functional difficulties caused thereby do not alone set the blind apart and isolate them from the rest of the community." He theorized that the blind formed a segregated or separate community which gave rise to stereotypes by the sighted (which were

responded to and became the source of counter stereotypes by blind persons) and cooperated with the physical handicap to influence the extent of social interaction.

Two of the six scales used to test hypotheses included an (AS Scale) which asked how the blind respondents perceived the attitudes of the sighted and a (GS Scale) which measured group identifications of blind respondents. Twelve hypotheses were formulated by Kim to test the theory that the blind form an internally polarized sub-community.

One of the hypotheses was supported by the finding that the more negative the visually handicapped persons' perceptions of the attitudes of the sighted, the more strongly the visually handicapped identified themselves with the blind.

Kim (1970) concluded: "Visual capacities, when dichotomized between the blind and the partially sighted, explain group identifications, orientation in social control, and orientation in socialization (with some qualification) but not orientation in the mastery of nature."

Historically, the educational programs of residential schools were academic in character. In addition, they provided twenty-four hour houseparent care for enrolled students. Objectives were 1) to provide training and education; 2) to promote independence; 3) to offer security while; 4) assisting each student with his or her social adjustment. Particular emphasis was placed upon the mastery of skills in daily living.

The most significant change in residential schools took place after federal funding became available through Public Law 91-230, 90th

Congress (Bledsoe 1971). Pupils who had one or more major handicap, in addition to visual loss, became eligible for special services in public schools. However, as far back as 1913 some public schools had organized classes for partially sighted students.

Public Law 91-230 resulted in the expansion of special programs in local public school systems. This program expansion, according to Jones (1966) served several purposes:

1) it tested the handicapped child's readiness for more complete integration into the general school program;
2) it allowed the handicapped child to associate directly with fully sighted children in learning activities, and;
3) it otherwise supplemented residential school programs whose curriculums were often restricted (by small enrollments) particularly at the high school level.

Between 1948 and 1958, the number of visually handicapped children enrolled in local public schools increased ten times. Efforts were made to integrate visually handicapped students into regular school programs and classes. New philosophies and different types of innovative programs were initiated (Jones 1963).

Some public schools initiated the "Special Class System"; that is, special classes in a separate unit were offered to the visually handicapped. Other public schools introduced the "itinerant teacher" who traveled from school to school, sometimes within several counties, and taught special classes designed for those with visual losses. The "Cooperative Class" concept was also used. Here, visually handicapped students attended regular classes most of the day while a home room

and a special study room were used for the specially designed classes. The "Resource Room" concept was begun. These were staffed with teachers who were specialists in the education of the visually handicapped. Other teachers continued to be responsible for regular subject matter content. According to Jones (1966) the Resource Room concept has not been fully developed in residential schools. Anderson (1976) states that "Research was begun in order to study the effectiveness of special class placements as compared to special school placements. Matched groups were used. One finding was that comparisons between special classes produced major differences in the amount of social and academic integration achieved. A key factor underlying these differences is administrative and organizational relating to policy design and staffing, rather than to the handicap of the children."

These developments in public school systems presented new challenges to the residential schools. One response was to establish, as part of a new philosophy, that residential schools served only those children who could not be adequately educated elsewhere. Some residential schools contracted with nearby local day schools. Here, visually handicapped students, enrolled in schools for the blind, attended selected classes in the regular school systems. The goal was to initiate integration with the sighted. For example, work study programs were established to provide more meaningful experiences. The Iowa Braille and Sight Saving School, for example, makes every effort to provide a more effective program for its students. At junior high age, the capable visually handicapped students are returned to the

public school system. Iowa's school also established a World of Work program for senior high school students. They also offered help to parents. Bledsoe (1971) in his study of residential schools, found that they had always been affected by two important factors: 1) continuous attempts to improve and review educational programs; and 2) efforts to try to respond to consumer opinion.

A mini-research project, presently in progress, will test the use of career education units in the curricula of six residential schools for the blind. According to Wurster (1975), material on career education is being incorporated into the classroom curricula. It is hoped that this concept would be incorporated into the programs of many more schools in the future. Commissioner of Education, S. Marland Jr., made an effort to reorder the educational effort around a concept called "Career Education." Separate tracks, careers and academics are being experimented. Academic and vocational units are being integrated into the total program. The objective is the development of a wholeness in the education program as well as in the student. Such a program would be used from kindergarten to the university level. The World of Work, economic independence and self-fulfillment would provide an integrated orientation to life.

For the visually handicapped adult, the Skills Center is another type of program being developed. Its aim is to assist the adult in learning to make personal, independent decisions. In addition, these centers teach daily living skills such as personal hygiene, grooming, and basic cooking (White 1975).

Residential schools for the blind now hold the belief that a student's interests and motivation represent key factors in success.

Regarding the social development of visually handicapped students, residential schools recognize there must be opportunity for "real life" experiences in the sighted world. Residential schools can help prepare their students for future employment by providing pre-vocational programs. Jones (1966) believes the most flexible and effective method will be on the job training assignments.

III THE SETTING

The Washington State School for the Blind dates back to 1886 when the territorial legislature established, in Vancouver, a school for "defective youth." The school provided care and education for the deaf, the blind and the mentally retarded.

In 1906 the mentally retarded were moved to Eastern Washington. In 1913 the School for the Blind and the School for the Deaf became separate institutions under separate management in Vancouver.

WSSB is the only residential school for the blind in the state. It serves all geographic areas of the state of Washington. It is part of the Department of Social and Health Services and under the direct supervision of the Bureau of Developmental Disabilities.

Residential schools may be similar in character, all having certain traits in common, but are different in personalities and eccentricities (Bledsoe 1971). WSSB maintains an educational milieu on a 24 hour around the clock basis in it's dozen buildings on campus. Six of these buildings are residence halls for students. It operates on a family-unit basis, each hall supervised by houseparents.

The School for the Blind embraces the philosophy that the blind child is entitled to equal educational opportunity. The School's

objective is to provide appropriate training and education. The goal is to provide a total educational environment operational over the waking hours of all students. The School is open to any child, between the ages of 3 and 21, who is a resident of the state and whose sight is sufficiently impaired to make education in the regular public school difficult or impractical. A sincere effort is made to individualize programs to meet the varied needs of the individual child. The students may attend a local public school for up to three class periods a day. Neighboring schools have been providing educational opportunities to students on all three levels: elementary, junior high, and senior high. Special emphasis is placed on physical education, music, home economics, and crafts. The low teacher-pupil ratio, the special equipment, teachers in special areas (mobility therapists, speech therapists) and the time allotted to work individually with the student provides a quality program on an individual basis. The Special Education Curriculum, home economics, art, crafts, and industrial arts are the heart of the pre-vocational program.

In the residential setting the students are taught home life skills, family attitudes, healthful habits associated with sleeping and cleanliness, the wise use of leisure time and techniques of good grooming. The students are encouraged to participate in programs outside the residential setting. Trips to the ocean, mountains, and attendance at symphonies, plays, dances, and picnics are arranged by the school.

Trained nurses supervise the health and safety of the children in residence. Health services are coordinated with a staff physician,

a dentist, pediatrician, and an ophthalmologist.

A psychologist and psychiatric social worker provide testing, counseling, and input from the students' family and home environment.

The number of multi-handicapped children at WSSB has increased greatly in the past several years. In 1951 the deaf-blind department was organized. In August, 1969, the Regional Deaf-Blind Center was located on the WSSB campus. Later it relocated to State Services for the Blind in Seattle. Presently, the most common dual impairment is that of retarded-blind. The Ahlstein program specifically was organized and staffed for the retarded-blind in 1972. At the present time over 70% of the students have more than just a visual handicap. The younger population at WSSB has the majority of handicaps. Students in the age range of 3 to 5 have 4.5 handicaps, those in the 6 to 8 range, 3.35, and the number progressively decreases as the age goes up. Other conditions that are found beside the visual and hearing handicap are seizure disorders, cerebral palsy, brain damage, speech impairment, orthopedic anomalies and others (Brothers 1974). No matter how severe the case, the school tries to help each individual child make some progress toward normality.

The researchers' experiences at WSSB prompted this study. Changing characteristics of residential schools for blind children and changing curricula also created interest and motivation for this research. The changing population at WSSB and the trends in the education of the visually handicapped attending public schools stimulated further interest. In 1975 and 1976 an increasing number of older academic students applied and were admitted. These students previously

attended regular public school programs. For these reasons, we chose, for this study, to use the population of students who graduated in the academic program.

IV THE STUDY HYPOTHESES

Independence and success were chosen as the main variables in this study. To assess the independence of a graduate's functioning, a three-category scale was used: dependent, semi-independent, and independent. Graduates who functioned in a dependent manner would look to others to initiate and carry out an activity; graduates who functioned in a semi-independent manner would need assistance in carrying out an activity; and graduates who functioned in an independent manner would be able to initiate and carry out an activity without assistance. The degree of independence was determined by assessing responses to five questions. Overall, independence was considered to be each graduate's ability to lead an adequate socially active life, with primary emphasis upon the pursued profession or vocation.

Success, or successful outcome, was considered to be directly related to: 1) each graduate's feelings about his life situation, and; 2) whether or not he/she believed hoped for goals had been reached.

It was hypothesized that several other variables used in the study would affect functioning level in relation to independence and success. These independent variables were type of education, sex, onset of blindness, degree of blindness, and age. Type of education, besides year of graduation, included the type of schools attended prior to graduation from WSSB, the highest grade completed and vocational

and rehabilitation training.

The authors believed that age would be a factor predicting success and independence in that older graduates would have had to pursue their chosen vocation. Sex was believed to be a factor predicting success due to the belief that perhaps many women marry shortly after graduation and have fewer opportunities to pursue a career. Regarding independence, sex was believed to be a predicting factor in that perhaps those women who marry immediately following graduation might rely more on their spouse to aid them in their social functioning.

Onset of blindness was believed to be a predicting factor for success and independence in that the sensory loss due to blindness occurring early in life could limit one's social and vocational adjustment.

Degree of blindness was believed to be a factor predicting success and independence in that those with less sight could be limited in their social and vocational adjustment.

The authors believed that the type of education received by the graduates would predict success and independence in that the more education and or vocational training received, as well as exposure to public schools prior to graduation, would lead to a better social and vocational adjustment.

The hypotheses pertaining to these variables were:

1) The type of education received will significantly affect the degree of success and independence among the graduates.
2) As related to the sex of the graduate, there will be a significant difference in the degree of success and independence achieved.

3) The degree of success and independence among the graduates will show a significant difference based on the onset of blindness.

4) Based on the degree of blindness, there will be a significant difference in the degree of independence and success among the graduates.

5) The current ages of the graduates will show a significant difference in the degree of success and independence.

For the purpose of this study, each variable has been defined in a limited manner.

This is a retrospective study. Its purpose is to discover whether the degree of success and the degree of independence will show a significant difference or an effect on the independent variables which are listed above. Possible associations between each of these variables will also be examined.

CHAPTER II

THE STUDY DESIGN

This chapter will describe the method of selecting the sample, the interview schedule, procedure, definition of terms and concepts, recording and analysis of the data and the limitations of this study.

I SELECTION OF THE SAMPLE

The total population originally included all WSSB graduates in the academic track, covering the years 1950 - 1975. However, the researchers could not locate any of the 1950 - 1959 graduates. There were no names or addresses available although an extensive search was made by school personnel. Therefore, the final population included all WSSB graduates in the academic track covering the years 1960 - 1975.

A two-stage stratified random design was used to select a sample of 50 from a pool of approximately 200 academic track students. The population was divided into three groups by five-year periods. Then each of the three groups was separated into two groups based on sex. Names were listed alphabetically and every other name selected for inclusion. If a student was deceased, the selected name was replaced. Only one graduate was deceased.

II INTERVIEW SCHEDULE

The procedure used to collect data from the WSSB graduates con-

sisted of personal interviews conducted by the researchers. The questionnaire used for this study, found in Appendix B, contains three sections.

Items for constructing the questionnaire were taken from studies that have previously been done on the visually handicapped, and on the institutionalized educable mentally retarded adults. The main sources included Dauwalder (1964), Bauman (1954), Lukoff and Whiteman (1958-59), Yoon Hough Kim (1970), and Kiley, Sher and Sunshine (1975). The selection of these items from earlier studies were applicable to this study in discovering the significant factors that are associated with the graduates' present functioning and attitudes. Wording of the questions and arrangements of the items were adapted to this study.

The first section consists of 86 questions with the items being pertinent to the variables used in this study. The independent variables were: sex, age, onset of blindness, degree of blindness, year graduated, highest grade completed, vocational training and type of schools attended prior to graduation from WSSB. The dependent variables were the respondent's opinion regarding whether or not they are working up to their capacity and ability in their chosen occupation and success. Questions relating to the specific variable can be found in Appendix D.

In the second section, five questions were designed to assess degree of independence among the graduates.

Section three of the questionnaire was duplicated from a part of the study previously completed by Yoon Hough Kim (1970). This section included 32 statements relating to perceived attitudes of the sighted

towards the blind and group identifications of the blind. The researchers planned to compare the attitudes of the graduates from WSSB to those who participated in Kim's study.

Pretests were conducted with five male and female blind adults, all of whom were similar to the interviewees used in our sample. The pretests were examined to see whether the criteria used was operative in discovering the objectives and hypotheses. It was found necessary to eliminate several questions because of duplication, and several others were revised to become more pertinent in measuring our hypotheses.

III PROCEDURE

Locating graduates in this sample was an overwhelming task. The names of the graduates were traced from the schools records. The original addresses were found in the records of the Alumni Association and in the school files.

Following the sample selection, letters were sent to each person informing them of the purpose of the study. A form was enclosed requesting their signed agreement to participate in an interview. A self-addressed, stamped envelope was enclosed for their convenience. Twelve signed forms were returned. The remainder of the population either did not receive the form mailed to them or did not reply to our letter. A number were returned, stamped "no such address" or "moved". Addresses of those persons who did not return their consent forms and those marked "no such address" or "moved" were traced either through records at State Services for the Blind, or by the graduates themselves

who knew where their friends were located. Telephone contacts were made to seek permission.

Both researchers conducted the first interview together to test consistency in interviewing. All the rest of the interviews were done individually. Each interview took an average of an hour.

From the sample of 50 graduates selected, 5 declined, 3 moved to another state, 2 others could not be located, and 1 was deceased. Thirty-nine were actually contacted and interviewed. Four interviews were conducted by telephone. Twenty-four of the interviewees were male and 15 female.

Questionnaires were coded by number rather than by name to insure confidentiality of the individuals who participated in this study.

IV DEFINITION OF TERMS AND CONCEPTS

In this study, the authors used the definition derived from the Social Security Act of 1935 and adopted by the American Medical Association. Blindness is defined as:

1) totally blind - having no light perception or light projection;
2) legally blind 20/200 visual acuity, meaning that a person can see at a distance no greater than 20 feet what one with "normal" sight can see at 200 feet;
3) partially sighted visual acuity is greater than 20/200 but not greater than 20/70 in the better eye after correction. (Kim 1970)

Blindness has been defined broadly by Mary K. Bauman (1963), to include the following five categories:

1) totally blind with no light perception or light projection;
2) light perception or light projection but insufficient vision to be of use in travel;
3) perception of large objects and movement to a degree which may be defined as travel vision;
4) travel vision and/or the ability to read print with special magnification;
5) partially sighted with reading vision, with or without magnification, but not sufficient for normal reading and other daily activities for which eyesight is essential.

Success or successful outcome was considered to be directly related to each graduates' feelings about his life situation and whether or not he/she believed hoped-for-goals had been reached.

Overall, independence was considered to be each graduate's ability to lead an adequate socially active life, with emphasis upon the pursued profession or vocation.

Graduates who functioned in an independent manner would be able to initiate and carry out an activity without assistance.

Graduates who functioned in a dependent manner would look to others to initiate and carry out an activity.

Graduates who functioned in a semi-independent manner would need some assistance in carrying out an activity.

V RECORDING AND ANALYSIS OF THE DATA

The questionnaire was constructed to incorporate fixed response questions, as well as open-ended items. Several fixed response questions were constructed so that two or more choices were possible. The open-ended items were arranged in categories, according to the response by the interviewees. All questions, fixed and open-ended responses, from sections one and two were scored by categories based on an ordinal scale. For purposes of data analysis, categories of some questions were altered. A copy of the constructed categories from the open-ended questions and revisions can be found in Appendix C.

In this descriptive study all responses were coded and recorded. Each response was punched onto IBM cards and the data was processed by a Harris 220 computer to measure frequency and percentage of each response. From the frequency percentage tables, variables between which a significant relationship was assumed were tested with a chi-square test of association at the $\alpha = .05$ level of significance. All chi-square tests of association were done on the Cyber 73 CDC computer.

A weighted value was assigned to each of the five questions in section two, which measured independence of functioning. The score 1.0 was assigned for being dependent, 2.0 semi-dependent, and 3.0 independent. (Kiley, Sher and Sunshine).

In order to establish relationships between the dependent variables of success as well as the dependent-independent scale with all the independent variables, a multi-variate multiple regression analy-

sis was performed on a Harris 220 computer. We then tested the relationships between all independent variables and success by means of a multiple linear regression on the Cyber 73 CDC computer.

Section 3 in the questionnaire was constructed so the interviewees could respond on a continuum ranging from strongly disagree to strongly agree to the statements. The responses coded were as follows: 1) strongly disagree, 2) disagree, 3) agree, and 4) strongly agree. In view of the interviewees' response to this section, a critique of the data was made, rather than a comparison with the attitudinal study conducted by Yoon Hough Kim.

VI STUDY LIMITATIONS

Much of the data collected in this study is descriptive in that it is based upon the graduates' experiences, feelings or opinions of their past and present functioning.

Technical and conceptual qualities of the proposal were presented to the Human Rights Review Desk in Olympia. If there had been more time for technical changes in the proposal, the findings probably would have been more effectively used in planning toward program changes in educational services for the blind. However, since this is a descriptive study, results can be used for more intensive and comprehensive research in the future.

Another limitation was incomplete and out-of-date addresses of the graduates. There were no obtainable records of WSSB graduates from the years 1950 to 1959. Therefore, the study was limited to the years of 1960 to 1975. If the population had been larger, the study

would have been more comprehensive and significant.

Many of the respondents felt some of the statements in the attitudinal survey were ambiguous in nature and they refused to respond. This limited the use of the survey to a critique of the graduates' opinions. The researchers had intended to compare it with a duplicate study that was previously done.

Another limitation was the assumption that all graduates between 1960 and 1975 were in the academic program. As a result, one person was inappropriately sampled.

TABLE I

YEAR OF GRADUATION BY SEX

Year Graduated	Male	Female	Total
1960 - 1964	8	4	12
1965 - 1970	7	6	13
1971 - 1975	9	5	14
Total	24	15	39

Table II shows the age range distribution of the graduates. The fact that 74% of the respondents were between the ages of 19 and 29 could indicate that the more recent graduates were easier to locate.

TABLE II

AGE OF RESPONDENTS

Age Range	Number	Percentage
19 to 24 years	13	33
25 to 29 years	16	41
30 to 34 years	8	21
35 to 39 years	2	5
Total	39	100

Tables III and IV show the distribution for onset and degree of blindness. Table V shows the distribution for cause of blindness among respondents.

TABLE III

ONSET OF BLINDNESS

Age of Onset	Number	Percentage
At birth	29	74
Under 1 year	4	10
1 - 4 years of age	2	5
5 - 9 years of age	2	5
10 - 14 years of age	2	5
Total	39	99*

* Total < 100% due to rounding error

TABLE IV

DEGREE OF BLINDNESS

Degree	Number	Percentage
Totally blind	16	41
Legally blind	20	51
Partially sighted	2	5
Did not answer	1	3
Total	39	100

TABLE V

CAUSE OF BLINDNESS

Cause	Number	Percentage
Birth defect	26	67
Lack of proper medical procedures	5	13
Developed in conjunction with optic disorder	5	13
Accidents	2	5
Did not know	1	3
Total	39	101*

* Total > 100% due to rounding error

Table III shows that 74% of the graduates interviewed were blind at

birth. Table IV indicates that there are an almost equal number of students who are legally blind as there are students who are totally blind. Table V shows that the major cause of blindness was due to birth defects. The medical eye diagnoses covered a wide range (Table V, Appendix D). The two most common cited by respondents were optic nerve disorders and retrolental fibroplasia.

Regarding marital status, 22 persons had remained single, while 17 were married. It is sometimes assumed that the blind are more likely to marry another blind person, as opposed to a person with normal vision, particularly if they attend a residential school for the blind where their primary peer contact is with other blind students. The authors found that, of the 17 married persons, 8 persons had married a spouse with visual difficulties and 9 persons had married a spouse with normal vision. Only 7 of those married had children.

III EDUCATION

WASHINGTON STATE SCHOOL FOR THE BLIND

Of those students attending schools in addition to WSSB, some attended other schools for the blind while others attended public school. As shown in the following table, 16 persons received some of their education in public schools as well as at WSSB, and 23 persons received their education solely from schools for the blind.

TABLE VI

WHERE EDUCATION WAS RECEIVED PRIOR TO GRADUATION FROM WSSB

	Number	Percentage
Public school	15	38
Special education in public school	1	3
Other schools for the blind	6	15
WSSB only	17	44
Total	39	100

* This table was collapsed into two categories for statistical testing:

    1) Those who had attended public school in addition to WSSB;

    2) Those who attended only schools for the blind.

The person inappropriately sampled was excluded from category 1.

While 21 of the respondents described their years at WSSB as generally a favorable experience, 18 respondents were critical of the social aspects related to this residential school. Common criticisms were the lack of contact with peers outside of WSSB, feeling they were treated in an overly protective manner, and the lack of free time to socialize due to the long hours required in the school program.

The majority of students remain in the school program at WSSB until the age of 20 or 21. Due to this and the fact that the blind have

certain occupational limitations, the authors were interested in the amount of influence WSSB had on the graduates' career choices. Table VII illustrates the degree of help the respondents felt they received from WSSB.

TABLE VII

INFLUENCE OF WSSB ON CAREER CHOICE OF GRADUATES

Degree of Influence	Number	Percentage
Very influential	2	5
Somewhat helpful	11	28
Could have been more helpful	8	21
No help	18	46
Total	39	100

Table VIII describes the ways in which respondents found WSSB helpful in preparing them for an occupation. In this table, interviewees were asked to respond to all categories they felt were applicable. Tables such as this throughout the narrative will be marked by an * to indicate multiple responses. As the table below shows, 28% of the responses indicate that contact with State Services for the Blind, initiated by WSSB, was beneficial in preparation for employment. Twenty-one percent of the responses indicate that preparation through academic instruction was beneficial, and 18% indicate that confidence and training for employment was received as a result of a well-rounded

experience. Sixteen percent of the responses indicate that no special preparation was received.

TABLE VIII

WAYS WSSB HELPED PREPARE GRADUATES FOR EMPLOYMENT*

Type of Preparation	Number	Percentage
Adequate confidence and training due to well-rounded experience	12	18
Academic and general instruction	14	21
Individualized training	2	3
Work experience	5	7
Contact with the State Services for the Blind	19	28
Nothing special was done	11	16
Other	4	6
Total	67	99**

* Multiple response categories

** Total < 100% due to rounding error

The authors were also interested in the role of WSSB in helping graduates obtain employment, as well as the graduates' perceptions of the school's role. Table IX shows the responses of the graduates.

TABLE IX

THE ROLE OF WSSB IN HELPING GRADUATES OBTAIN EMPLOYMENT

Role of WSSB	Number	Percentage
School arranged for placement in employment	2	5
Felt school was not responsible for obtaining employment	31	80
Other	6	15
Total	39	100

As the table above indicates, the majority (80%) of the respondents felt the school was not responsible for their employment. Two of the respondents stated that WSSB had a role in their obtaining employment, one person continuing at a work experience job and another hired by WSSB as a teacher's aide. Of the six other responses, five indicated that WSSB had no role in their obtaining employment, but felt the school should have done more by focusing on the individual students' interests and abilities. One person felt WSSB had been helpful by arranging contact with State Services for the Blind.

In Table X, the respondents have indicated how they might have been better prepared for employment while attending WSSB.

TABLE X

GRADUATES' SUGGESTIONS FOR IMPROVEMENT OF PREPARATION FOR EMPLOYMENT AT WSSB*

Suggestion	Number	Percentage
Offer more assistance	7	9
More social preparation was needed	15	19
More vocational courses offered	17	22
More mobility training	7	9
Stimulated to course areas or work activities	11	14
Very satisfied with what was offered	12	15
Work experience	5	6
Other	4	5
Total	78	99**

* Multiple response categories

** Total < 100% due to rounding error

Twenty-two percent of the responses call for more vocationally oriented courses in the school's curriculum, and 19% indicate that more social preparation is needed. Fifteen percent of the responses denote satisfaction with what was offered.

Respondents were asked if they felt students at WSSB would benefit from vocationally oriented courses in addition to academic courses. The

majority (37) of the respondents thought that students would benefit from vocational courses added to the academic curriculum. Their reasons for feeling vocational courses would be beneficial are shown in the table below.

TABLE XI

VALUE OF AVAILABILITY OF VOCATIONAL COURSES*

Value	Number	Percentage
Is becoming increasingly important for everyone	2	4
Helps in preparation for employment	21	42
Curricula should be adjusted to individual needs and abilities	24	48
Makes learning more concrete	2	4
Offers more definite goals and purposes	1	2
Total	50	100

* Multiple response categories

There appears to be a trend in the interviewees' responses towards pointing out a need for curricula at WSSB to include vocational courses and training, as well as adjusting the program to meet individual students' needs and abilities. Table XII points out the continuity of responses in this area.

TABLE XII

SUGGESTIONS TO IMPROVE ACADEMIC AND VOCATIONALLY ORIENTED COURSES AT WSSB*

Suggestion	Number	Percentage
Include vocational preparation	16	24
Remain academically oriented	8	12
Individualize programs	16	24
Attend public school in addition to WSSB	2	3
Update WSSB to public school standards	5	8
Improve social climate	8	12
More preparation in area of living skills	6	9
No suggestions	5	8
Total	66	100

* Multiple response categories

ADDITIONAL EDUCATION AND TRAINING

Regarding the graduates' future plans, several questions were asked as to the nature of these plans and whether or not these plans had been successful. Table XIII shows the graduates' plans for furthering their education. As it shows, 69% of the graduates planned to attend some college.

TABLE XIII

GRADUATES' PLANS TO FURTHER THEIR EDUCATION AFTER WSSB

Plan	Number	Percentage
Attend community college	18	46
Attend short-term educational program	0	0
Attend a 4-year college	9	23
Attend a vocational training center	2	5
None	10	26
Total	39	100

Table XIV shows the additional education the former graduates received after leaving WSSB, excluding vocational training.

TABLE XIV

ADDITIONAL EDUCATION RECEIVED BY FORMER GRADUATES

Education Received	Number	Percentage
No additional education	10	26
Some college	23	59
College graduate	6	15
Total	39	100

As the table above points out, the majority of the former graduates (29) attended some college, however, only 6 of them graduated from college. Three of the college graduates continued their post-graduate education.

Table XV shows the relationship between additional education received after graduation from WSSB and where education was received prior to graduation. No statistical significance was established at the $\alpha = .05$ level of testing. However, 87% of those graduates who had attended only schools for the blind went on to college as compared to 60% of those who attended public schools in addition to WSSB. Also, 28% of those having attended only schools for the blind graduated from college, compared to 7% of those who had attended public schools.

TABLE XV

WHERE EDUCATION WAS RECEIVED PRIOR TO GRADUATION FROM WSSB

BY ADDITIONAL EDUCATION RECEIVED AFTER GRADUATION

Prior Education	No Additional Education	Some College	College Graduate	Total
Attended public schools	6	8	1	15
Attended blind schools only	3	15	5	23
Total	9	23	6	38

$p > .05$ $x^2=4.3$ $df=2$

Table XVI shows the degrees earned by those graduates who attended college.

TABLE XVI

EDUCATIONAL DEGREES EARNED

Degree	Number	Percentage
A.A.	3	8
B.A./B.S.	5	13
M.S.W.	1	3
None	30	77
Total	39	101*

* Total > 100% due to rounding error

Of those graduates who had plans to further their education after graduating from WSSB, 16 persons responded that they felt their plans had been successful, while 12 others felt they had not been successful.

TABLE XVII

PLANS FOR VOCATIONAL TRAINING AFTER GRADUATION AND SUCCESS OF PLANS

	Number	Percentage
Had vocational training plans that were successful	8	21
Had vocational training plans that were unsuccessful	10	26
Had no vocational training plans	21	54
Total	39	101*

* Total > 100% due to rounding error

Table XVII above shows that, of those graduates who had vocational training plans, the percentage of those who felt their plans had been successful (21%) is slightly lower than those who felt their plans were unsuccessful (26%). The majority of respondents (54%) had no plans to receive vocational training after graduation.

The authors found it interesting that, although 8 of the 39 respondents (21%) had planned to receive vocational training at the time they graduated, 27, or 71% of them actually did receive vocational train-

ing after graduating from WSSB (Table XVIII below). Whether or not respondents had attended public school or only schools for the blind before graduation had no statistically significant relationship to those who received vocational training after graduation when tested at the $\alpha = .05$ level of significance.

TABLE XVIII

WHERE EDUCATION WAS RECEIVED PRIOR TO GRADUATION FROM WSSB BY VOCATIONAL TRAINING

Prior Education	Vocational Training	No Vocational Training	Total
Attended public schools	12	3	15
Attended blind schools only	15	8	23
Total	27	11	38

$p > .05$ $x^2 = .96$ $df = 1$

TABLE XIX

PLANS FOR EMPLOYMENT AFTER GRADUATION AND SUCCESS OF PLANS

	Number	Percentage
Had employment plans and plans were successful	7	18
Had employment plans and plans were unsuccessful	7	18
Had no employment plans	25	64
Total	39	100

Of the 14 graduates who had plans for employment, there were an equal number who felt they had succeeded with these plans as there were those who felt they had not succeeded (Table XIX). Again, the majority (64%) had no employment plans following graduation.

IV STATE SERVICES FOR THE BLIND AND VOCATIONAL TRAINING

The authors felt it would be important to this study to include data regarding the graduates' involvement with State Services for the Blind, since this is the primary resource agency for blind persons in the state of Washington. Most WSSB students have contact with this agency either prior to, or following graduation. Most persons having contact with State Services for the Blind prior to graduation receive educational and vocational testing and guidance.

Of the sample of 39 persons, 22 had contact with State Services for the Blind, while 17 had no contact prior to graduation. Table XX shows the responses of those who had contact with State Services for the Blind prior to graduation and whether or not they were satisfied with the assistance they received.

TABLE XX

SATISFACTION WITH HELP RECEIVED BY STATE SERVICES FOR THE BLIND BEFORE GRADUATION

Degree of Satisfaction	Number	Percentage
Satisfied with assistance received	14	36
Not satisfied, giving no explanation	1	3
Not satisfied, no finances available for college	1	3
Not satisfied with guidance offered	6	15
Received no assistance	17	44
Total	39	101*

* Total > 100% due to rounding error

Of the 39 respondents, 36 had contact with State Services for the Blind after graduation. Table XXI outlines the type of services received by the 36 graduates, many of which received more than one service.

TABLE XXI

ASSISTANCE OFFERED TO GRADUATES BY STATE SERVICES FOR THE BLIND*

Type of Assistance Received	Number	Percentage
Counseling	15	18
Testing	15	18
Mobility training	10	12
Rehabilitation services and training	17	21
Vending stand training and placement	4	5
Placement on a job	4	5
School financial assistance	16	19
Referral to vocational center	2	2
Total	83	100

* Multiple response categories

Regarding the degree to which assistance offered by State Services for the Blind was of help, the respondents answered in the following manner (Table XXII).

TABLE XXII

DEGREE TO WHICH ASSISTANCE OFFERED BY STATE SERVICES FOR THE BLIND WAS HELPFUL

Degree of Helpfulness	Number	Percentage
Very helpful	14	36
Moderately helpful	14	36
Not helpful	8	21
No answer	3	8
Total	39	101*

* Total > 100% due to rounding error

Respondents were asked about rehabilitation services that they had received from agencies other than State Services for the Blind. Of the 39 respondents, 10 had received such services from other agencies, 5 of which had attended Olympia Vocational Technical Institute. As to the type of services received by these 10 respondents, 6 were placed in a job, 2 received vocational training, one living skills training, and one was for the purpose of mobility training with a guide dog.

When respondents were questioned as to whether or not they felt rehabilitation services would be beneficial at the present time, 24 of the respondents felt such rehabilitation services would not be beneficial, 12 of the respondents felt that vocational training would be beneficial, and 3 felt they would benefit from more training in living skills.

Tables XXIII and XXIV show the relationship of respondents who feel they would benefit from further rehabilitation services with the year in which they graduated and employment. The data in both tables shows no statistical significance at the $\alpha = .05$ level. However, the data supports the importance of adequate vocational training. Both tables indicate that 86% of those who would benefit from rehabilitation services need or desire further vocational training.

TABLE XXIII

GRADUATES WHO WOULD BENEFIT FROM REHABILITATION SERVICES BY YEAR GRADUATED

Type of Service	Year Graduated			
	1960-65	1966-70	1971-75	Total
Vocational training	4	3	5	12
Living skills	0	2	0	2
None	8	8	8	24
Total	12	13	13	38

$p > .05$ $x^2 = 24.65$ $df = 26$

TABLE XXIV

GRADUATES WHO WOULD BENEFIT FROM REHABILITATION SERVICES BY EMPLOYMENT

Type of Service	Employed	Unemployed	Total
Vocational training	6	6	12
Living skills	1	1	2
None	18	6	24
Total	25	13	38

$p > .05$ $x^2=2.46$ $df=2$

When respondents were questioned as to whether or not they had vocational training plans for the future, 16 said "yes", while 22 said "no" and one was "uncertain".

Respondents were asked what changes they would make, if any, in their past academic and vocational training experiences. Table XXV shows the distribution of responses.

TABLE XXV

DESIRED CHANGES IN PAST ACADEMIC AND VOCATIONAL TRAINING EXPERIENCES*

Desired Change	Number	Percentage
More academic preparation	6	13
More vocational preparation	8	17
More social preparation	4	8
More living skill preparation	2	4
More education after WSSB	5	10
Attended public school	2	4
More personal motivation	1	2
Improved vocational training	3	6
No changes	17	35
Total	48	99*

* Multiple response categories

** Total < 100% due to rounding error

V EMPLOYMENT

Employment was viewed by the researchers as crucial to this study, not only for the purpose of descriptively indicating the outcome of the former graduates, but also as one of the variables used for defining success.

Of the 39 respondents, 25 were employed and 14 unemployed when

interviewed. The following tables (XXVI, XXVIII through XXIV) illustrate cross-tabulations made between employment and other demographic variables. The data in Table XXVI shows a significant relationship at the $\alpha = .05$ level of significance between employment and sex.

TABLE XXVI

EMPLOYMENT BY SEX

	Male	Female	Total
Employed	19	6	25
Unemployed	5	8	13
Total	24	14	38

$p < .05$ $x^2=5.18$ $df=1$

A closer look at the 8 unemployed females from Table XXVII reveals that 5 were not seeking employment, which could indicate that women are not necessarily unemployed because it is more difficult for them to find jobs. Table XXVII shows the marital status, living situation, and those who were seeking employment for the 8 unemployed females.

TABLE XXVII

UNEMPLOYED FEMALES*

Unemployed Females	M=Married S=Single	Living Situation	Seeking Employment
1	M	With spouse	No
2	S	Alone	Yes
3	S	Other	No
4	S	Alone	No
5	S	With parents	No
6	M	With spouse	No
7	M	With spouse	Yes
8	S	Alone	No

*n=8

Of the 5 unemployed males, all were single, 2 of them living with their parents and 3 living alone. Three of these males were seeking employment, one of which was living with his parents.

TABLE XXVIII

EMPLOYMENT BY AGE

	Years of age 19 - 24	25 - 29	30 - 34	35 - 39	Total
Employed	6	11	6	2	25
Unemployed	6	5	2	0	13
Total	12	16	8	2	38

$p > .05$ $x^2=2.73$ $df=3$

Table XXVIII shows no statistical significance between employment and age, though there are progressively fewer unemployed persons as the age bracket increases.

TABLE XXIX

EMPLOYMENT BY MARITAL STATUS

	Single	Married	Total
Employed	11	14	25
Unemployed	10	3	13
Total	21	17	38

$p > .05$ $x^2=3.75$ $df=1$

Table XXIX shows a slightly negative association between employment and marital status at the $\alpha=.05$ level of significance. This would indicate a trend in that those who are married are more likely

to be employed. However, since 62% of the sample were men, and men are more often than not the employed person in a married couple, this result was not unexpected.

TABLE XXX

EMPLOYMENT BY ONSET OF BLINDNESS

	At Birth	Under 1 Year	1-4 Years	5-9 Years	10-14 Years	Total
Employed	17	2	2	2	2	25
Unemployed	11	2	0	0	0	13
Total	28	4	2	2	2	38

$p > .05$ $x^2=3.88$ $df=4$

The data in Table XXX shows no statistical significance between employment and the onset of blindness at $\alpha=.05$ level.

TABLE XXXI

EMPLOYMENT BY DEGREE OF BLINDNESS

	Totally Blind	Legally Blind	Partially Sighted	Total
Employed	11	12	2	25
Unemployed	5	8	0	13
Total	16	20	2	38

$p > .05$ $x^2=1.4$ $df=2$

The data in Table XXXI shows no statistical significance between employment and degree of blindness at the α=.05 level. There is a fairly equal distribution between employed persons who are totally and legally blind, indicating that total blindness does not necessarily hinder a person's ability to obtain employment.

TABLE XXXII

EMPLOYMENT BY ADDITIONAL EDUCATION RECEIVED AFTER GRADUATION

	No Additional Education	Some College	College Graduate	Total
Employed	7	12	6	25
Unemployed	2	11	0	13
Total	9	23	6	38

$p > .05$ $x^2=5.59$ $df=2$

The data in Table XXXII shows a slightly negative relationship between employment and additional education received after WSSB at the α=.05 level. All college graduates were employed, however, those who attended some college show an almost equal number of employed and unemployed persons.

TABLE XXXIII

EMPLOYMENT BY VOCATIONAL TRAINING

	Vocational Training	No Vocational Training	Total
Employed	18	7	25
Unemployed	9	4	13
Total	27	11	38

$p > .05$ $x^2 = .03$ $df = 1$

Table XXXIII shows no statistical significance between employment and those who received vocational training after graduation at the $\alpha = .05$ level.

TABLE XXIV

EMPLOYMENT BY WHERE EDUCATION WAS RECEIVED PRIOR TO GRADUATION FROM WSSB

	Attended Public Schools	Attended Blind Schools Only	Total
Employed	11	14	25
Unemployed	4	9	13
Total	25	23	38

$p > .05$ $x^2 = .63$ $df = 1$

Table XXXIV shows no statistical significance between employment and where education was received prior to graduation at the $\alpha = .05$

level of significance.

TABLE XXXV

OCCUPATIONS

	Number	Percentage
Manufacturing, mechanical and technical	5	13
Professional	9	23
Domestic	0	0
Unclassified	11	28
Unemployed	14	36
Total	39	100

Occupations of employed respondents varied greatly. Within the manufacturing, mechanical and technical group, there were 4 machine operators and one piano tuner. Professionals included 2 teacher's aides, 2 computer designers, and one each of the following: newspaper editor; musician/music teacher; teacher; social worker; and physical therapist. Within the unclassified groups, 4 are employed in factories, 2 in telephone sales, and one each of the following: typist; vending stand operator; houseparent; plant nursery work; and dictaphone operator.

Two persons had secondary jobs. One was a piano tuner and the other a musician.

Only 4 persons were self-employed, while the remaining 21 were

employed by someone else. The hours of work per week varied, with 3 people working less than 10 hours per week, 4 people working 21 to 30 hours, 11 people working 31 to 40 hours, and 7 people working over 40 hours per week. Twenty persons held jobs which were permanent, 4 had temporary employment, and one person had seasonal employment. Nine persons worked predominantly with other blind persons, 7 with predominantly sighted persons, and 8 worked with a fairly even number of blind and sighted persons. Length of employment at present jobs varied with 5 persons working less than 1 year, 13 persons from 1 to 5 years, 5 persons from 6 to 10 years, and 2 persons over 10 years.

Table XXXVI shows the degree to which respondents were satisfied or dissatisfied with various aspects of their jobs. Not all categories were applicable to all respondents, and some refused to assign a score to certain categories.

TABLE XXXVI

DEGREE OF SATISFACTION WITH DIFFERENT ASPECTS OF JOB*

	Satisfied No.	%	Neutral No.	%	Dissatisfied No.	%	Total (Row)
Type of work performed	21	84	2	8	2	8	25
Rate of pay	17	68	6	24	2	8	25
Type of supervisor	17	68	3	12	1	4	23
Co-workers	19	76	3	12	1	4	23
Location of job	20	80	2	8	2	8	24
Hours of work	21	84	3	12	1	4	25
Vacations	17	68	4	16	3	12	24
Pension arrangements	11	44	1	4	5	20	17
Insurance	16	64	0	0	2	8	18
Unions	5	20	1	4	5	20	11
Chances for advancement	14	56	6	24	3	12	23
Chance to learn a trade	12	48	6	24	3	12	21
Work related to ability	17	68	6	24	2	8	25
Steadiness of work	17	68	4	16	4	16	25
Physical conditions at work	20	80	3	12	2	8	25
Attitudes toward blind workers	13	52	8	32	3	12	24

* n = 25 employed persons

As table XXXVI indicates, most respondents were satisfied with their jobs in terms of the categories presented to them. The job

aspects that 80% or more of the respondents were satisfied with were job location, hours of work, and the physical conditions at work. Categories receiving 24% of the responses regarding job aspects about which respondents felt neutral were rate of pay, chances for advancement, the chance to learn a trade, and their work being related to their ability. Thirty-two percent felt neutral about the attitudes toward blind workers at their place of employment. The job categories receiving the largest number of dissatisfied responses (20%) were pension arrangements and unions. Sixteen percent were dissatisfied with the steadiness of their job.

The authors were interested in the process through which employment was obtained by the respondents, and how those persons seeking employment would go about this. Table XXXVI shows how those who are employed obtained their job positions.

TABLE XXXVII

HOW PRESENT JOBS WERE OBTAINED

	Number	Percentage
State rehabilitation agency	8	32
Friend's referral	3	12
Newspaper or other ad	2	8
Direct application to employer	6	24
School referral	5	20
Asked to take position	1	4
Total	25	100

*n= 25 employed persons

Table XXXVIII shows how those who are unemployed would go about

looking for jobs.

TABLE XXXVIII

HOW UNEMPLOYED WOULD OBTAIN JOBS*

	Number	Percentage
Personal contact with employer	17	33
Friends	4	8
State Services for the Blind	8	16
Employment agencies	9	18
Want ads, journals	8	16
State civil service	3	6
Musician's union, booking agent	2	4
Total	51	101**

* n=14 unemployed persons. Multiple response categories

** Total > 100% due to rounding error

Of those persons who were actively seeking employment at the time of the interviews, 8 were applying directly to employers, 6 were relying on vocational rehabilitation counselors, and 1 had registered with the state civil service.

VI SUCCESS AND CAPABILITIES

As stated in Chapter II, success has been defined as how the graduates felt about their present roles, and whether they feel favorable about

what they had hoped to become following their graduation. In this study, success is directly related to the respondents' vocations. Respondents' opinions were solicited regarding their success, and whether or not they are working up to their capacity or ability in their chosen vocation. These questions were answered by all respondents, as some feel they have been successful in their chosen vocation though they may be presently unemployed.

TABLE XXXIX

RESPONDENTS' FEELINGS OF SUCCESS IN THEIR CHOSEN VOCATION

	Number	Percentage
Successful	26	67
Uncertain	7	15
Unsuccessful	6	18
Total	39	100

Table XL shows the relationship between the respondents' feelings of success and whether or not they received vocational training. There was no statistical significance at the $\alpha = .05$ level of testing, although the majority (73%) of the respondents who felt successful had received vocational training.

TABLE XL

SUCCESS BY VOCATIONAL TRAINING

	Received Vocational Training	No Vocational Training	Total
Successful	19	7	26
Uncertain	5	1	6
Unsuccessful	3	3	6
Total	27	11	38

$p > .05$ $x^2=1.78$ $df=2$

Respondents were asked what factors they felt had prevented them from achieving greater vocational success. Table XLI shows the distribution of responses. As shown, 30% of the responses regarding factors that hindered greater vocational success were due to the lack of vocational rehabilitation services and vocational skills.

TABLE XLI

FACTORS PREVENTING GREATER VOCATIONAL SUCCESS*

	Number	Percentage
Lack of job opportunities	15	21
Discrimination against blind workers	12	16
Lack of vocational rehabilitation services	6	8
Lack of vocational skills	16	22
Personal shortcomings	13	18
Poor economic conditions	4	5
Insufficient academic preparation	3	4
Unable to work	1	1
None	3	4
Total	73	99**

* Multiple response categories

** Total < 100% due to rounding error

In Table XLII success was cross-tabulated with marital status, showing no statistical significance at the $\alpha = .05$ level of testing.

TABLE XLII

SUCCESS BY MARITAL STATUS

	Married	Single	Total
Successful	13	13	26
Uncertain	2	4	6
Unsuccessful	2	4	6
Total	17	21	38

$p > .05$ $x^2 = .92$ $df = 2$

TABLE XLIII

RESPONDENTS' FEELINGS REGARDING WORKING UP TO CAPACITY OR ABILITY IN THEIR CHOSEN VOCATION

	Number	Percentage
Working to capacity or ability	19	49
Not working to capacity or ability	19	49
No answer	1	3
Total	39	101*

* Total > 100% due to rounding error

The authors found it interesting that 67% of the respondents felt they had been successful in their vocation (Table XXXIX). However, regarding working to capacity or ability, the responses were

almost equally divided (Table LXII). Of those feeling they were not working up to their capacity or ability, those who were unemployed (14) would account for the majority of those responding.

Question 86 (Appendix B) was designed to gain more insight as to what factors the former graduates felt had helped them in their occupation. This was based on the advice they would give to others entering a particular profession or occupation. The categories shown in Table XLIV were formed from the open-ended answers.

TABLE XLIV

GRADUATES' ADVICE TO OTHERS REGARDING ENTERING A PARTICULAR PROFESSION OR OCCUPATION*

	Number	Percentage
Motivation is most important	23	34
Stress positive points	14	21
Learn basic skills in profession	8	12
Know one's abilities	6	9
Become knowledgeable of resources available	8	12
No advice	8	12
Total	67	100

* Multiple response categories

VII INCOME

The authors found that over half of the respondents receive less

than $4,000 in yearly income. Tables XLV and XLVI show the amount of income received by the respondents (and spouses, if married), as well as the source of their income. Tables XLVII through LII show the results of cross-tabulations made between income of the respondents (excluding spouses' income) and the following variables: sex, age, onset of blindness, degree of blindness, additional education received after graduation, vocational training, and where education was received prior to graduation from WSSB. For these tests, income categories were collapsed into:

1) Under $4,000;
2) Over $4,000;
3) Refused to answer/didn't know.

TABLE XLV

INCOME OF RESPONDENTS AND THEIR SPOUSES

Amount of Income	Self		Spouse	
	Number	Percentage	Number	Percentage
Under $1,999	13	33	2	5
$2,000 to 3,999	7	18	1	3
$4,000 to 5,999	4	10	1	3
$6,000 to 7,999	3	8	1	3
$8,000 to 9,999	0	0	1	3
$10,000 to 11,999	2	5	1	3
$12,000 to 13,999	0	0	3	8
$14,000 to 15,999	2	5	0	0
Over $16,000	1	3	0	0
Refused to answer	5	13	1	3
Did not know	1	3	0	0
No answer	1	3	28	72
Total	39	101*	39	103*

* Totals > 100% due to rounding error

TABLE XLVI

SOURCE OF INCOME*

Source	Number	Percentage
Respondent's earned wages	25	40
Family financial aid	1	2
Public assistance	3	5
Social security	2	3
S.S.I.	19	31
Unemployment	3	5
Spouse's earned wages	9	15
Total	62	101**

* Multiple response categories

** Total > 100% due to rounding error

TABLE XLVII

INCOME BY SEX

	Male	Female	Total
Under $4,000	11	9	20
Over $4,000	10	2	12
Refused/didn't know	3	3	6
Total	24	14	38

$p > .05$ $x^2=7.8$ $df=8$

Income by sex (Table XLVII) showed no statistical significance at the α=.05 level of testing, though few females (2) reported their income to be over $4,000.

TABLE XLVIII

INCOME BY AGE

	19-24 years	25-29 years	30-34 years	35-39 years	Total
Under $4,000	11	6	3	0	20
Over $4,000	0	7	3	2	12
Refused/didn't know	1	3	2	0	6
Total	12	16	8	2	38

$p < .01$ $x^2=47.09$ $df=24$

Table XLVIII shows a significant relationship between income and age at the α=.01 level of significance. Over half (55%) of those persons whose income was reported to be $4,000 or less are those in the category who had graduated most recently. This is to be expected, since many go on to college or to receive vocational training upon completion of high school, or find jobs which require no specialized training, therefore receiving lower wages. Both of the interviewees between 35 and 39 years of age received an income over $4,000.

TABLE XLIX

INCOME BY ONSET OF BLINDNESS

	At Birth	Under 1 Year	1-4 Years	5-9 Years	10-14 Years	Total
Under $4,000	16	3	1	0	0	20
Over $4,000	7	1	1	2	1	12
Refused/didn't know	5	0	0	0	1	6
Total	28	4	2	2	2	38

$p < .05$ $x^2=47.86$ $df=32$

Table XLIX shows a statistically significant realtionship between income and onset of blindness at the $\alpha=.05$ level of significance. Sixteen persons (80%), whose reported income was under $4,000, were blind at birth, indicating a tendency for those whose blindness occurred early in life to have a lower income compared to those whose blindness occurred later in life.

TABLE L

INCOME BY DEGREE OF BLINDNESS

	Totally Blind	Legally Blind	Partially Sighted	Total
Under $4,000	9	11	0	20
Over $4,000	5	5	2	12
Refused/didn't know	2	4	0	6
Total	16	20	2	38

$p > .05$ $x^2=24.03$ $df=16$

Table L shows no statistically significant relationship between income and degree of blindness at the $\alpha=.05$ level of testing.

TABLE LI

INCOME BY ADDITIONAL EDUCATION RECEIVED AFTER GRADUATION FROM WSSB

	No Additional Education	Some College	College Graduate	Total
Under $4,000	4	16	0	20
Over $4,000	3	4	5	12
Refused/didn't know	2	3	1	6
Total	9	23	6	38

$p < .05$ $x^2= 29.16$ $df=16$

The data in Table LI shows a statistically significant relationship between income and the additional education received by the graduates at the α=.05 level of significance. This is primarily indicated by the fact that 5 of the 6 college graduates (86%) reported their income to be over $4,000. All of those whose income was under $4,000 had not graduated from college, although 80% had attended some college.

TABLE LII

INCOME BY VOCATIONAL TRAINING

	Received Vocational Training	No Vocational Training	Total
Under $4,000	14	6	20
Over $4,000	7	5	12
Refused/didn't know	6	0	6
Total	27	11	38

$p > .05$ $x^2=7.87$ $df=8$

There was no statistical significance established between income and vocational training at the α=.05 level of testing (Table LII). The data in this table indicates that receiving vocational training did not necessarily increase the income of the respondents. However, this is difficult to predict since 6 persons (20%) either did not know their income or refused to answer.

TABLE LIII

INCOME BY WHERE EDUCATION WAS RECEIVED PRIOR TO GRADUATION FROM WSSB

	Attended Public Schools	Attended Blind Schools Only	Total
Under $4,000	6	14	20
Over $4,000	5	7	12
Refused/didn't know	4	2	6
Total	15	23	38

$p > .05$ $x^2=14.15$ $df=8$

The data in Table LIII shows a slightly negative relationship between income and where education was received prior to graduation at the $\alpha=.05$ level of significance. Of those who reported their income to be less than $4,000, a greater percentage had attended only schools for the blind, indicating a trend among respondents to receive a higher income if public schools were attended in addition to WSSB.

VIII SOCIALIZATION

LIVING ARRANGEMENTS

Table LIV shows the distribution of living arrangements of the former graduates.

TABLE LIV

LIVING ARRANGEMENTS

	Number	Percentage
Alone	12	31
Institutions	0	0
Family (spouse & children)	17	44
With parents	4	10
With friends	5	13
With relatives	1	3
Total	39	101*

* Total > 100% due to rounding error

The 17 persons living with their spouses and children accounts for those who are married. Another 44% live either alone or with friends. There were relatively few (13%) living with parents or relatives. None of the respondents live in institutions.

CHURCHES AND ORGANIZATIONS

The authors were interested in the social activities of the respondents as an indication of how they were prepared to lead an active adult life. Tables LV and LVI show the respondents' involvement in church and organizations.

TABLE LV

CHURCH ATTENDANCE

	Number	Percentage
Never	20	51
Several times a year	3	8
Once a month or so	4	10
Every two or three weeks	4	10
Once a week	7	18
Twice a week or more	1	3
Total	39	100

Over half of the respondents (51%) never attend church. Twenty-one percent attend church once a week or more often.

TABLE LVI

MEMBERSHIP IN ORGANIZATIONS*

Type of Organization	Number	Percentage
Civic	12	29
Church	2	5
State and national	4	10
None	24	57
Total	42	101**

* Multiple response categories

** Total > 100% due to rounding error

Of the 18 respondents who were members of some type of organization, 9 attended meetings regularly, and 3 attended meetings once in a while.

HOBBIES, SPORTS, AND ACTIVITIES

Thirty-four of the 39 respondents stated that they had hobbies. Tables X and XI in Appendix D show the hobbies, sports and activities of the respondents. As the tables indicate, respondents enjoy quite a variety of hobbies, activities, and sports.

CONTACT WITH OTHERS

Contact with others was viewed by the authors as another aspect related to the social adjustment and activities of the graduates. The following tables correspond with questions 78 through 84 of the questionnaire (Appendix B).

TABLE LVII

PREFERENCE TO DO THINGS ALONE OR WITH OTHERS

	Number	Percentage
Alone	6	15
With others	18	46
Both	13	33
Makes no difference	2	5
Total	39	99*

* Total < 100% due to rounding error

Respondents were asked whether or not they had what they considered to be a "special" friend. Thirty-one of the 39 respondents said "yes", while 8 felt they did not have what they considered to be a "special" friend. Table LVIII shows the amount of contact respondents had with their "special" friend. As indicated, 80% have contact with their special friend at least once a week.

TABLE LVIII

FREQUENCY OF CONTACT WITH SPECIAL FRIEND*

	Number	Percentage
Several times a week	22	70
Once a week	3	10
Few times a month	1	3
Once a month	1	3
Less than once a month	4	13
Total	31	99**

* n=31

** Total < 100% due to rounding error

Respondents were asked whether the majority of their friends were sighted or visually handicapped. Table LIX shows their responses.

TABLE LIX

SIGHTED AND VISUALLY HANDICAPPED FRIENDS OF RESPONDENTS

	Number	Percentage
Sighted	19	49
Visually handicapped	7	18
Mixed	13	33
Total	39	100

Respondents were questioned about whether or not they have contact with neighbors. Twenty-five of 39 respondents stated they do have contact with neighbors, while 14 do not.

Table LX shows the amount of contact respondents have with their families.

TABLE LX

FREQUENCY OF CONTACT WITH FAMILIES

	Number	Percentage
Daily	5	13
Weekly	9	23
Monthly	15	38
Occasionally	9	23
Never	1	3
Total	39	100

Respondents were asked if they would initiate future contacts with someone they met that they enjoyed. Thirty-three of those interviewed said they would initiate future contacts.

IX INDEPENDENCE/DEPENDENCE SCALE

Independence of functioning was measured by a five-question scale (Appendix B). The interviewers rated each response according to the following definitions. Independence was defined as each graduate's ability to lead an adequate socially active life with emphasis upon the pursued vocation. Graduates who functioned in an independent manner would be able to initiate and carry out an activity without assistance. Graduates who functioned in a dependent manner would look to others to initiate and carry out an activity. Semi-independent graduates would need some assistance in carrying out an activity. Table LXI shows the distribution of responses to the Independence Scale.

TABLE LXI

INDEPENDENCE/DEPENDENCE SCALE

Question #	Independent		Semi-Independent		Dependent	
	No.	%	No.	%	No.	%
1	32	82	4	10	3	8
2	37	95	1	3	1	3
3	33	85	4	10	2	5
4	31	79	4	10	4	10
5	30	77	7	18	2	5

As Table LXI clearly shows, most respondents (77% or more) ranked in the independent category for each question. The authors feel that, according to how independence was defined for this study, the respondents did function quite independently. This conclusion is supported by Tables XLIV in this section and VII in Appendix D, and indicates that graduates prepared to lead an independent adult life.

X ATTITUDINAL SURVEY

The attitudinal survey in this study was duplicated from part of a previous study in Minneapolis published by Yoon Hough Kim (1970). This survey is designed in 2 parts, consisting of 16 statements each to which respondents were asked to agree, disagree, strongly agree, or strongly disagree (See Questionnaire, Appendix B). The first 16 statements were designed to measure respondents' perceived attitudes of the sighted towards the blind. The second 16 statements were designed to measure the group identification of the blind.

The authors found that the attitudinal survey was responded to poorly by the interviewees (Table XII, Appendix D). In retrospect, many of the questions seemed ambiguous and, in the opinion of the interviewers, the same responses sometimes reflected very different meanings. One example, in statement 21 of the group identification scale (It is better for the blind to be in institutions with their own kind) "institutions" was interpreted quite differently by respondents. Some interpreted "institutions" to mean residential schools for the blind, while others interpreted it to mean a more permanent living arrangement that would isolate them from the mainstream of society. Several comments

on the part of respondents indicated they felt the nature of the statements were negative, which accounts for most of the refusals. The rate of refusal to respond to statements is higher in the second half of the attitudinal survey. The refusal rate, ambiguity of some statements, and the respondents' feelings regarding the general tone of the attitudinal statements caused the authors to re-evaluate the use of this survey. As a result, the authors felt it would not be a useful measure of the perceived attitudes of the sighted towards the blind and group identification of those interviewed for this study.

XI HYPOTHESES AND FINDINGS

The hypotheses for this study were tested by means of a multivariate multiple regression program on a Harris 220 computer (Table LXII). Multi-variate multiple regression was used to analyze variation among the dependent variables of success and independence and the independent variables sex, age, onset of blindness, degree of blindness, year of graduation, highest grade completed, vocational training, and where education was received prior to graduation from WSSB. The F value for the dependent variable success in relation to the independent variables was found to be statistically significant ($F=3.63$ $df= 8,29$ $p < .01$). F values for the other dependent variables measuring independence of the graduates were not statistically significant ($p > .05$). In order to further test the significant correlation between success and all the independent variables outlined above, a multiple linear regression was run on a Cyber 73 CDC computer (Table LXIII).

RELATIONSHIP OF TYPE OF EDUCATION RECEIVED TO SUCCESS AND INDEPENDENCE

H_{1a}: Type of education received will not significantly affect the degree of success among the graduates.

H_{1b}: Type of education received will not significantly affect the degree of independence among the graduates.

The results of the multiple linear regression shows a significant relationship between success and the type of education received in terms of the amount of education received after graduation. The t value of -2.42 ($p < .05$, df=37) shows a negative correlation between these two variables. This indicates that the more post high school education received by the graduates, the less likely they are to view themselves as successful. Post high school education accounts for 13% of the total variability predicting success. Therefore, the null hypothesis was rejected.

No statistically significant relationship was found between post high school education and independence. Therefore, the null hypothesis was accepted for hypothesis 1b.

RELATIONSHIP OF SEX TO SUCCESS AND INDEPENDENCE

H_{2a}: As related to the sex of the graduate, there will not be a significant difference in the degree of success achieved.

H_{2b}: As related to the sex of the graduate, there will not be a significant difference in the degree of independence achieved.

The results of the multi-variate multiple regression and the multi-

ple linear regression showed no statistical significance between sex and independence or between sex and success ($p > .05$). Therefore, the null hypothesis was accepted for both hypotheses 2a and 2b.

RELATIONSHIP OF ONSET OF BLINDNESS TO SUCCESS AND INDEPENDENCE

H_{3a}: The degree of success among the graduates will not show a significant difference based on the onset of blindness.

H_{3b}: The degree of independence among the graduates will not show a significant difference based on the onset of blindness.

The results of the multiple linear regression and the multivariate multiple regression showed no statistical significance between onset of blindness and success or onset of blindness and independence ($p > .05$). Therefore, the null hypothesis was accepted for both hypotheses 3a and 3b.

RELATIONSHIP OF DEGREE OF BLINDNESS TO SUCCESS AND INDEPENDENCE

H_{4a}: Based on the degree of blindness, there will not be a significant difference in the degree of success among the graduates.

H_{4b}: Based on the degree of blindness, there will not be a significant difference in the degree of independence among the graduates.

The results of the multiple linear regression show a highly significant correlation between degree of blindness and success, accounting for 22% of the total variability predicting success of the graduates. The t value of -3.16 ($p < .05$, $df=37$) shows a negative correlation between degree of blindness and success. This indicates that the

less sight or visual acuity a graduate has, the more likely he or she is to feel successful. This high correlation might indicate that those who are totally blind are more accepting of and adjusted to their blindness in comparison to those who have partial vision. Therefore, the null hypothesis 4a was rejected.

No statistically significant correlation was established between degree of blindness and independence ($p > .05$). Therefore, the null hypothesis was accepted for hypothesis 4b.

RELATIONSHIP OF AGE TO SUCCESS AND INDEPENDENCE

H_{5a}: The current age of the graduates will not show a significant difference in the degree of success.

H_{5b}: The current age of the graduates will not show a significant difference in the degree of independence.

The results of the multiple linear regression shows a statistically significant correlation between age and success of respondents. The t value of -2.42 ($p < .05$, $df=37$) shows a negative correlation between age and success. This indicates that the older the graduate is, the less likely they are to feel successful. Sex accounts for 13% of the total variability predicting success. Therefore, the null hypothesis 5b was rejected.

No statistical significance was established between age and independence ($p > .05$). Therefore, the null hypothesis 5b was accepted.

The next chapter will set forth the conclusions these researchers have drawn from analysis of the findings described in this chapter. Recommendations will also be made for future research which might follow and enhance upon this study.

TABLE LXII

MULTI-VARIATE MULTIPLE REGRESSION COEFFICIENT

	INTERCEPT	1	2	3	4	5	12
14	15						
7	.43214E+01	-.21861E+00	-.33046E-01	-.17943E+00	-.27773E-01	-.15814E+00	.30013E-01
	-.84171E-01	-.21542E+00					
8	.22235E+01	-.52643E-01	-.05106E-01	-.04829E-01	-.14221E-01	-.13585E-01	.58454E-01
	-.47894E-01	-.74356E-01					
9	-.61377E+00	.52863E-01	-13610E+00	-.18595E+00	.27074E-01	.14508E+00	.12158E-01
	.17357E+00	-.14638E+00					
*	.56810E+00	-.90715E-01	-.38033E-01	-.29694E-01	.11153E-01	.17234E+00	.13085E+00
	-.34850E+00	-.29709E+00					
*	.47152E+01	-.20851E+00	-.25300E-01	-.2840E+00	-.32370E-01	-.86348E-01	-.19448E+01
	.17177E-01	-.96073E-01					
*	.93236E+01	-.63460E+00	.90099E-01	-.56065E+00	-.71042E-01	-.29783E+00	-.33769E+00
	-.13566E+00	-.74261E-01					
	F-VALUES	.97318	.62352	1.21908	1.11785	1.026864	3.62681
	DEGREES FREEDOM	8,29					

TABLE LXIII

MULTIPLE LINEAR REGRESSION

SELECTION NO. 12-24

SAMPLE SIZE 38
NO. OF VARIABLES 9 NO. OF VARIABLES DELETED 0 (FOR VARIABLES DELETED, SEE BELOW)
DEPENDENT VARIABLE IS NOW NO. 8

COEFFICIENT OF DETERMINATION .5001
MULTIPLE CORR. COEFFICIENT .7072

SUM OF SQUARES ATTRIBUTABLE TO REGRESSION 10.73952
SUM OF SQUARES OF DEVIATION FROM REGRESSION 10.73416

VARIANCE OF ESTIMATE .37014
STD. ERROR OF ESTIMATE .60839

INTERCEPT (A VALUE) 9.39787

ANALYSIS OF VARIANCE FOR THE MULTIPLE LINEAR REGRESSION

SOURCE OF VARIATION	D.F.	SUM OF SQUARES	MEAN SQUARES	F VALUE
DUE TO REGRESSION	8	10.73952	1.34244	3.6268
DEVIATION ABOUT REGRESSION	29	10.73416	.37014	
TOTAL	37	21.47368		

Table LXIII Continued on Page 88

Continued From Table LXIII

VARIABLE NO.	MEAN	STD. DEVIATION	REG. COEFF.	STD. ERROR OF REG. COE.	COMPUTED T VALUE	PARTIAL CORR. COE.	SUM OF SQ. ADDED	PROP. VAR. CUM.
1	1.36842	.48885	-.07426	.21480	-.34572	-.06407	.01535	.00071
2	2.00000	.86992	-.63460	.26235	-2.41895	-.40975	2.89286	.13472
3	1.57895	1.15388	.09010	.10669	.84447	.15492	.01186	.00055
4	1.63158	.58914	-.56065	.17742	-3.16008	-.50611	4.67275	.21760
5	67.97368	4.66434	-.07104	.04977	-1.42733	-.25620	.13855	.00645
6	2.21053	1.01763	-.29783	.12323	-2.41693	-.40946	1.87357	.08725
7	.71053	.45961	-.33769	.23015	-1.46729	-.26289	.98020	.04565
9	.39474	.49536	-.13566	.21005	-.64584	-.11908	.15439	.00719
8	1.47368	.76182						

CHAPTER IV

DISCUSSION, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter data will be interpreted and the results of the research will be explained in meaningful terms.

I DISCUSSION

As indicated in the literature review, the philosophies of residential schools for the blind have gradually changed in the last 200 years. In 1784, Hauy believed blind students could only be educated in residential schools segregated from the sighted population, though he believed the curricula should be the same. Since that time, more emphasis has been focused on integrating blind students with the sighted. This resulted from the increased awareness on the part of educators as to the social and psychological needs of blind students. It would be unrealistic to expect these students to function in society if they were denied this opportunity to have their social and psychological needs met before graduation. The data in this study supports earlier findings in previous studies. The WSSB graduates felt a need to have more contact with the sighted community and more social experiences in the sighted community. Forty-six percent of the graduates were critical of the lack of social contacts and experiences while at WSSB. Long hours required in the school program did not allow time for

outside social activities. They also felt they were treated in an overly protective manner. The need for more social preparation represented 19% of the responses to the question, "How could WSSB better prepare students for employment?"

Another trend is one of placing more emphasis upon career education as part of class room curricula. Dauwalder found that 85% of the graduates he surveyed recommended that vocational training be included in the high school curricula. Graduates who participated in this study repeatedly pointed out the need for vocational guidance and training in high school. They did not mean less emphasis should be placed on academics. Forty-four percent of the suggestions for improving WSSB curricula were that WSSB should remain academically oriented, include vocational preparation in the curricula, and update standards to be equivalent to those of public schools. Another twenty-four percent of the responses indicated the programs should be individualized to meet each student's interests and abilities. The graduates emphasized that vocational guidance and training for adequate preparation for employment should be made available. Forty-two percent of the graduates' responses indicated that vocational courses would be an important factor in preparing high school students for employment. Regarding the preparation the graduates themselves received at WSSB, 16% of the responses indicated that nothing special was done. Forty-six percent of the graduates stated that WSSB had no influence on their career choice. Perhaps the fact that 74% of the graduates received some college education after graduation is reflective of their feelings that while at WSSB they did not receive adequate preparation for

employment. This could suggest that the graduates were in fact not employable, so chose to enter college.

It is the opinion of the researchers that many of the graduates who initially went on to college eventually received vocational training and did not complete their college education. Perhaps the attempt to define career goals did not take place until after graduation. The data shows that 69% of those graduates who initially went on to college did not continue. Further data supporting this speculation is while only 47% of the graduates had plans to receive vocational training, actually 71% did receive vocational training after graduation.

State Services for the Blind played a key role in furthering the graduates' training after leaving WSSB. Ninety-two percent of the graduates had contact with this agency. Fifty-two percent of the responses relating to the type of assistance received included vocational and rehabilitation training, job placements, referral to other vocational centers and school financial assistance. The authors believe that graduates tended to be satisfied with the help they received from State Services because more emphasis was placed on their future vocational plans. Perhaps another explanation for the high degree of satisfaction with State Services for the Blind is that 32% of the graduates who were employed obtained their jobs through this agency. Those who were dissatisfied with State Services commented that they were channeled into vocational areas contrary to their interests. The fact that so many of the graduates relied on this agency for vocational and related assistance supports their feelings that they were inadequately prepared for a vocation at WSSB. However, 28% of the responses

regarding how WSSB helped prepare students for employment indicated that WSSB had been helpful by assisting them in their contact with State Services for the Blind.

The data shows that 83% of the graduates who wanted to be employed were holding a job position. Of the 39 graduates, 25 were employed and 14 were unemployed. Only 5 unemployed persons were looking for work. Even though the chi-square test of association between employment and sex was statistically significant at the $\alpha=.05$ level, indicating that women are less likely to be employed, this is not necessarily the case if the number of persons not seeking employment is considered.

The researchers found it remarkable that 51% of the graduates received less than $4,000 in yearly income. Dauwalder's study (1964) showed that the blind received less income than the sighted for performing the same type of work. This might be one factor explaining the low income received by the graduates in this study. Another factor affecting the low income of the respondents was that the source of income for those who were unemployed was primarily Supplemental Security Income. According to the chi-square tests of association, income showed a significant relationship to additional education and onset of blindness at the $\alpha=.05$ level of significance. Also, income was significantly related to age at the $\alpha=.01$ level of significance. Those who received an income greater than $4,000 tended to be older, had received more additional education, and became blind later in life. The researchers found it revealing that 70% of those who did receive vocational training had a yearly income of less than $4,000. This raises the question as to the actual value of vocational training in

relation to income. Perhaps several of these persons were employed in sheltered workshops and factories.

The ten hypotheses were tested by means of a multi-variate multiple regression to analyze variation among the dependent variables of success and independence and the independent variables sex,age, onset of blindness, degree of blindness, year of graduation, highest grade completed, vocational training, and where education was received prior to graduation from WSSB. Success, in relation to the independent variables was found to be statistically significant at $p < .01$. No statistically significant relationship was found between independence and the independent variables at $p < .05$. The multiple linear regression was used in order to further test the significant correlation between success and the independent variables.

The hypotheses testing generated data that revealed a statistically significant relationship between success and the independent variables age, degree of blindness and additional education. The results indicated that respondents who were older, had a higher degree of visual acuity, and had received more education, tended to feel unsuccessful in their chosen vocation. Those who were younger, had less visual acuity, and had received no or little additional education after graduation tended to feel successful. These findings would appear to coincide with Bauman's findings (1954) that those who received a limited education were more successful in their vocations. However, Bauman's criteria for success is unknown to the authors. Perhaps the older graduates who felt unsuccessful, yet received more additional education, set higher goals and expectations for themselves, and had higher expectations placed upon them by others.

It was also of interest to the researchers that working to capacity or ability was not a criterion upon which respondents rated their own success. While 67% felt successful, responses regarding working to capacity or ability were almost equally divided. Dauwalder's study (1964) showed that the more recent graduates were more satisfied with their work than were graduates from the previous ten years. The researchers believe that job satisfaction could be a criterion upon which respondents based success. If so, the data in this study which indicates that the older graduates tend to feel less successful supports Dauwalder's findings. One possible reason recent graduates might have felt more successful could have been their satisfaction in having a job, while the older graduates were more concerned with satisfaction from a job.

II CONCLUSIONS

1) The graduates tended to be critical of their social experience while at WSSB and felt it was important to have contacts with and social experiences in the sighted community.
2) Graduates indicated that they felt WSSB should have standards equivalent to those of public schools but remain an academically oriented residential school.
3) The graduates in this study did not feel they were adequately prepared for a vocation during their years at WSSB.
4) Most graduates thought WSSB was not responsible for securing their employment. They did think that vocational training and guidance based on an individual's abilities and interests,

as well as social preparation, were important in terms of preparing students for employment.

5) Most graduates who had contact with State Services for the Blind, both before and after graduation, were satisfied with the assistance they received due to the emphasis placed on future vocations.

6) Females tend to be unemployed more often than males. However, this is due partly to the choice of the females to remain unemployed. It could also be due to less emphasis upon their becoming employed.

7) WSSB graduates receiving a higher income tended to be older, became visually impaired later in life, and received more additional education after graduation.

8) Graduates who attended only schools for the blind as compared to those who attended public school in addition to WSSB, tended to receive less income.

9) The respondents' own feelings of success were not based on employment and income.

10) Employment and income were not affected by whether or not respondents' received vocational training.

11) Graduates who were older, have a higher degree of visual acuity, and received more additional education after graduation, tended to view themselves as being less successful. In the opinion of the authors, it is assumed that these graduates tended to have higher expectations of themselves.

12) Most of the graduates who felt they were successful had re-

ceived vocational training.

13) Though most graduates did not feel they would benefit from further rehabilitation services at this time, the majority of those who did felt they would benefit most from vocational training.

14) According to the criteria established by the authors to measure the degree of independence among the graduates, the majority were ranked as independent.

III LIMITATIONS OF THE FINDINGS

Certain limitations of this study must also be kept in mind when discussing the significance of this study. In selecting the sample, the authors assumed that all of the graduates between 1960 and 1975 would be in the academic program. One person was inappropriately placed on the sampling frame as an academic program graduate, and as a result, was later excluded from statistical testing.

Another limitation of the findings was the rate of refusal on the part of the former graduates to respond to statements on the attitudinal survey, as well as the ambiguous nature of some statements. Perhaps this was influenced by the manner in which this section of the questionnaire was presented to the interviewees. Another possible explanation is that attitudes of the blind have changed significantly since Kim's study in 1970. This is indicated by comments on the part of respondents that many of the statements were applicable to all persons and not solely to the blind population. The authors believe this might indicate that the blind have recently become more integrated

into the mainstream of society. This influenced the decision of the authors to question its use as an accurate measure of the perceived attitudes of the sighted towards the blind and the group identification of the respondents in this study.

The authors felt that the 18% who did not know or refused to report their income perhaps significantly influenced findings regarding income. Also, if income had included that of spouses, perhaps a more realistic picture of household income could have been portrayed.

In retrospect, the authors felt that certain statistical tests of association had been overlooked that perhaps would have provided more depth as to the findings of this study.

Another limitation of this study was the subjective criteria on which success was based. Perhaps a more accurate measure of success could have been established, as the factors related to self-concept are difficult to measure.

IV RECOMMENDATIONS

The authors view this as a pilot study from which further research might be generated. WSSB is presently faced with a shifting population trend from an academic orientation to a multi-handicapped population. Considerations regarding the future of the school include whether or not to remain an academically oriented residential school facility or adjust the academic and social programs to serve a multi-handicapped population. Further studies might include a comprehensive comparison between the education received in public schools by academi-

cally oriented visually handicapped persons, and the education received in residential schools for the blind.

Another recommendation for further study would be to explore the relevance of other attitudinal surveys. The authors' original plan to compare the attitudinal survey in this study to Kim's study in 1970 was to explore how attitudes of the blind have changed. This could have relevant social economic and political implications for the visually handicapped population.

The researchers also feel that a comparative study of success based on both an objective and subjective criteria might provide a clearer picture of how graduates define their success, which might drastically differ from how our society objectively defines success.

On the basis of statements made by respondents, the authors recommend that vocational training and guidance based on individual students' abilities and interests remain a part of the educational program at WSSB. Also, interviewees placed a high priority on adequate social preparation for adulthood. The authors recommend that WSSB continue to encourage and make allowances for increased social contacts outside of the residential setting.

V SUMMARY

This chapter has been devoted to discussion of the results of the study in more practical terms. Conclusions and implications are only representative of this sample. The authors found that a more thorough understanding of the problems and needs of the visually handicapped was gained through this study. The questions cited in Chapter

I, which prompted this study and related to changing philosophies and changing curricula, cannot be answered. Irrespective of changing philosophies and changes in curricula, all graduates within the 15 year period from 1960 to 1975 felt that WSSB should remain academically oriented and include vocational courses. The composite results of this study answer the question related to what factors and conditions helped graduates reach their goals.

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APPENDICES

APPENDIX A

INTRODUCTORY LETTERS

May 13, 1976

Mr. Robert Sharpley
Department of Social & Health Services
Human Rights Review Desk MS 27-2
Olympia, WA. 98504

Subject: Research Proposal

Dear Mr. Sharpley:

I want to be on record as giving my full support and the official endorsement of the Washington State School for the Blind to the proposed research study by Sister Renee' Klisch and Ms. Linda Heider.

Basically, there is a need within the system to follow up on graduates of the School for the Blind. I am aware of the procedures to be used and the questions which will be used on the field test version of the questionnaire. I feel the two young researchers will be able to conduct very valid types of interviewing. Both have been with us at the school for the past year during their field work experience. Their professionalism and skills will do more to ensure the success of the project than any other variable which I could identify.

Our Board of Trustees at the school have gone on record as wanting additional information about the product of all our efforts. I know of no other agency or procedure within the system that could develop the information to be expected from the research.

I believe they have adequate support from staff at Portland State College in addition to the interest of Dr. Brown in our Planning and Research Division.

I urge you to act favorably on their request.

Respectfully,

Roy J. Brothers, Ed. D.
Superintendent

RJB:dg

COMMUNITY SERVICES DIVISION
Washington State School For The Blind—*Roy J. Brothers, Ed.D., Superintendent*
P. O. Box 1865, Vancouver, WA 98663

Human Rights Review Desk, MS-350

June 16, 1976

State of Washington
Department of Social & Health Services

Sister Renee Klisch
and
Ms. Linda Heider
0858 South West Palatine Road
Portland, Oregon 97219

Dear Sister Renee and Ms. Heider:

This letter will confirm approval of your research proposal by the DSHS Central Human Rights Review Committee as a student training project.

As discussed with you by telephone last week, reviewers were aware of your academic and personal time constraints and the likelihood that you would probably be unable to conduct the proposed project if the review committee were to insist on proposal clarifications and/or modifications. As also discussed, reviewers voiced a good number of concerns, particularly in regard to the conceptual basis and logic of your information gathering instruments and their likely reliability. For example, most reviewers commented on the vagueness of the project's "success" criterion, both in terms of the discussion offered in the proposal and in terms of questionnaire items. I am fairly sure that if there had been time for consultation on the committee's part, the technical and conceptual quality of the proposal could have been considerably improved.

After a good deal of agonizing, reviewers agreed to allow the project if clear limits could be agreed upon with you on the dissemination and use of project findings. Specifically, reviewers voiced concern over the possible use of project results and inferences for planning and program changes in the service area for the blind. In the committee's view, the technical promise of the proposed project is not such that its results can be used as a basis for program planning decisions and I have been specifically instructed by the committee to make this point clear to you and to Dr. Brothers. Also, to emphasize this project limitation, the committee approved the project explicitly as a "student training project"--not as a full-blown professional project. Further, the committee gave project approval only on the basis of my assurance that I had discussed the above project limitations with you and that you had verbally agreed to them.

The committee attached the following three conditions to its approval:

1. You agree to revise your informed consent statement by substituting the phrase "opinion and attitude survey" for the word "research"--wherever the latter appears.

PLANNING AND RESEARCH DIVISION
Ralph Littleston, Director
P O Box 1788, Olympia, WA 98504

2. You agree to notify the DSHS Human Rights Review Desk of the termination date of your project and to submit a final study report to the review committee. The report may be a copy of your master thesis or a report specifically prepared for the review committee.

3. You agree to submit any manuscripts for publication resulting from your project for prior review and approval to the Department of Social and Health Services (Human Rights Review Desk). Please note DSHS policy on publications in the area of student training projects on pp. 33-34 of the enclosed policy.

Again, I wish we had had more time to assist you with your project plans. All reviewers agreed with the need for comprehensive and reliable information in the area covered by your proposal and they appreciated your interest and your willingness to cope with the numerous practical difficulties you are likely to encounter in your interview survey. Also, while the project limitations discussed above will limit the status of the project to that of a pilot study, your practical experience in this follow-up effort and your interview findings may well serve as a basis or guidepost for a more intensive and comprehensive study. Last, but not least, the project will allow you to obtain your master's degree--I am sure the limitations imposed by our review committee in regard to the project's applied nature will have no effect on its value as a professional or academic learning experience.

Good luck with your project!

Sincerely,

Robert P. Sharpley
Executive Secretary
DSHS Central Human Rihgts Review Committee

RPS:pl

cc: Roy Brothers, Ph.D.
Central Human Rights
Review Committee

Enclosure

June 11, 1976

State of Washington
Department of Social & Health Services

Dear

The Department of Social and Health Services has received a request for Sister Renee Klisch and Linda Heider, from Portland State University, for permission to conduct an anopinion survey through the School for the Blind in Vancouver, Washington. This survey is for the purpose of completing a Master's Degree in Social Work.

The opinion survey would involve approximately 50 persons who have graduated from W.S.S.B. during the past 25 years. It is the intent of this letter to describe the project to you and ask for your permission to be included in the project.

Basically, the purpose of the project is to explore the various factors which were most significant in helping to determine the present roles and attitudes of previous graduates. Information regarding the status of graduates from W.S.S.B. could prove to be valuable to the school, as well as the Department of Social and Health Services in assessing present programs and providing direction in planning for future program modifications.

The opinion survey will involve a personal interview, which will be arranged and conducted by one of the persons mentioned below. Any and all information obtained in the course of this project will be treated in the strictest confidence. All interviews will be coded by numbers, and names will not be used or appear in the survey results.

The survey plans have been reviewed and approved by the Human Rights Review Committee of the Department of Social and Health Services and by the Department's Bureau of Developmental Disabilities.

With this letter of explanation, I am asking for your permission to include your name in the described project. If you agree to give your permission, please sign the attached Consent Statement and return it in the enclosed self-addressed envelope.

Please let me emphasize in closing that your permission is voluntary; That is, you are free to decide whether or not you wish to participate in the survey. If you wish additional information before you give your permission, please contact me or the project directors at the addresses shown below.

Thank you for your kind interest.

Sincerely,

Roy J. Brothers

Roy J. Brothers, Ed. D.
Superintendent

ADDRESSES:

Sister Renee Klisch
0858 S.W. Palatine Hill Rd.
Portland, OR. 97219
Phone: (503) 636-4701

Linda Heider
605 Jackson St.
Oregon City, OR. 97045
Phone: (503) 655-9519

COMMUNITY SERVICES DIVISION
Washington State School For The Blind—*Roy J. Brothers, Ed.D. Superintendent*
P. O. Box 1865, Vancouver, WA 98663

TO: Dr. Roy J. Brothers
Superintendent
Washington State School for the Blind
Vancouver, Washington 98663

FROM: The undersigned

SUBJECT: Consent for your participation in the opinion survey of former WSSB graduates by Sister Renee Klisch and Linda Heider, Portland State University.

On the basis of the information provided in your letter of June 11, 1976 regarding the opinion survey of Sister Renee Klisch and Linda Heider, I, the undersigned, hereby give my permission to Sister Renee Klisch and Linda Heider to include me in the described opinion survey.

_____ _____

Signature Date

APPENDIX B

FOLLOW-UP OF WSSB GRADUATES - QUESTIONNAIRE

Questionnaire No. _____ Date of Interview: _____

State: _____ Telephone Contact: _____

County: _____ Personal Contact: _____

City: _____ Interviewed by: _____

1. Sex:

   Male
   Female

2. Race:

   White
   Negro
   Other

3. How old are you? (Last birthday)

   20 - 24
   25 - 29
   30 - 34
   35 - 39
   40 - 44
   45 - 49
   50 and over

4. Where were you born?

   United States
   Canada
   Other

5. What is your religious affiliation?

   Catholic
   Protestant
   Jewish
   Other
   None

6. What is your marital status?

   Married
   Single
   Widow-widower
   Separated
   Divorced
   Other

7. (If married) Has your spouse any visual difficulties?

   No
   Yes

8. Do you have children?

   No
   Yes

9. If No. 8 is yes, how many children?

10. With whom do you live?

    Alone
    Institution
    Family
    Other

11. When did you start having trouble with your sight? (Check one alternative from each set.)

    a. At birth (Premature?)
       Under 1 year
       1 - 4 years
       5 - 9 years
       10 - 14 years
       15 - 19 years
       20 - 39 years
       40 - 59 years
       60 and over

    b. Less than 6 years ago
       6 - 10 years ago
       11 or more years ago

12. How much sight do you have?

    Totally blind
    Legally blind (With visual acuity less than 20/200)
    Visual acuity better than 20/200

13. How did you lose your sight?

    Birth defect
    Lack of proper medical procedures

14. What is your medical eye diagnosis?

15. Do you wear glasses or use a low vision aid?

    No
    Yes
    Both

16. What mode of travel do you use in the community?

    Aid of a cane
    Guide dog
    A sighted person
    No aids
    Do not go outside
    Other

EDUCATION

17. Year graduated from WSSB.

18. How many years did you attend WSSB?

19. During what years?

20. What special classes did you attend before coming to WSSB?

21. Degrees earned?

22. What subjects did you like best at WSSB?

23. What subjects did you like least at WSSB?

24. Do you read braille?

    No
    Yes

25. Do you use any of the following? (Check as many as needed.)

    Stylus
    Braille writer
    Large print type
    Regular print type
    Abacus
    Talking book machine

26. How would you describe your years of academic training at WSSB generally? (Check as many as you like.)

A favorable experience
Appreciated the specialized training
Appreciated the social experience
Critical of social experiences
Critical of academic training
Other

27. How influential was WSSB in assisting you in the choice of your occupation?

Very influential
Somewhat helpful
Could have been more helpful
No help
Other

28. In what ways did WSSB prepare you for a job? (Circle as many as apply.)

Adequate confidence and training by means of a well-rounded experience
Academic and general instruction
Individualized training
Adequate vocational guidance
Work experience
Contacts with specific employers
Contacts with State Services for the Blind
Nothing special was done
Other

29. What did WSSB do to help you find a job?

School arranged for placement in employment
School was not responsible for obtaining employment
Other

30. What more could WSSB have done to help prepare you for an occupation?

Offer more assistance
More social preparation was needed
More vocationally oriented courses could have been offered
More training in mobility
Could have been stimulated to participate in particular course areas or in specific work activities
Very satisfied with what was offered
Other

31. Would blind students benefit from vocationally oriented courses in addition to academic courses?

No
Yes

32. If answer to No. 31 is yes, why do you think so?

    Is becoming increasingly important for everyone
    Helps in preparation of job
    Curricula should be adjusted only on the individual's needs or abilities
    Training for a job should be done only after graduation from high school
    Other

33. What suggestions can you make to improve WSSB's academic and vocationally oriented courses?

34. Did you receive help from the State Services for the Blind while attending WSSB?

    Some assistance
    No assistance
    Assistance was not available at the time

35. If you received assistance, were you satisfied with the help?

    No
    Yes
    If no, why?

36. Did you have plans to further your education when you graduated from WSSB?

    No
    Yes
    Attend community college
    Attend short-term educational program
    Other
    None

37. (If yes) Did plans in No. 36 work out?

    No
    Yes

38. Did you have vocational plans or training when you graduated from WSSB?

    No
    Yes

39. (If yes) Did plans is No. 38 work out?

    No
    Yes

40. Did you have employment plans when you graduated from WSSB?

    No
    Yes

41. (If yes) Did plans in No. 40 work out?

    No
    Yes

42. What was the highest grade you completed after high school?

    High school
    Some college
    College graduate
    College plus
    Other

43. After leaving WSSB, did you have any contact with the State Services for the Blind?

    No
    Yes

44. If contact was made, what assistance did the State Office offer? (Check as many as necessary.)

    a. Counseling
       Testing
       Mobility training
       Rehabilitation training
       Vending stand training and placement
       Placement on a job
       Other

    b. Explain the degree of help you received from the State Services for the Blind Office:

       Very helpful
       Moderately helpful
       Not helpful

45. Complete this if you received rehabilitation services from any agency other than the State Office for the Blind.

    a. Name of organization and type of service:

    b. Explain in what ways and to what extent these services were of help:

46. Complete the following if you believe you could benefit from some rehabilitation service at this time.

a. What type of service do you desire or need?

b. Why do you need this service?

c. Who should provide this service?

47. List the vocational courses which were most useful to you in your employment career.

48. Do you feel you have been successful in your vocation?

Successful
Unsuccessful
Uncertain
Other

49. Do you believe you are working up to capacity or ability in your present vocation?

No
Yes

50. What factors do you feel have prevented you from achieving greater vocational success? (Check as many as apply.)

Lack of job opportunities
Discrimination against blind workers
Lack of vocational rehabilitation services
Lack of vocational skills
Personal shortcomings
Poor economic conditions
Other

51. Do you have any vocational training plans for the future?

No
Yes

52. If the answer is yes in No. 51, please specify:

53. Would you change anything in your past academic or vocational training experiences?

No
Yes
Specify

54. Are you presently employed?

No
Yes

55. If not employed, how would you go about seeking employment?

56. If not employed, are you actively seeking employment?

No
Yes
If yes, how?

57. What is your present occupation?

a. Manufacturing, mechanical and technical work:

TV repair
Piano tuning
Electronics
Other

b. Professional:

Authors
Editors of newspapers
Attorneys
Musicians and music teachers
Preacher
Teacher
Other

c. Domestic:

Sewing
Housework
Other

d. Unclassified (General):

Rooming home proprietor
Janitor
Telephone operator
Typist and ediphone
Other

58. If you are employed, are you:

Self-employed
Employed by someone else

59. How many hours a week do you work?

Less than 10 hours
21 to 30 hours
31 to 40 hours
Over 40 hours

60. Is your job:

Permanent
Temporary
Seasonal

61. Do you work predominantly with blind or sighted persons?

Blind
Sighted
Both

62. How long have you worked at your present job?

1 - 5 years
6 - 10 years
Over 10 years

63. Describe any promotions received during this period of employment:

64. How was this job obtained?

State Employment Service
State rehabilitation agency
Family recommendation
Referral by friend
Newspaper or other ad
Direct application to employer
School referral (Name of school)
Other

65. Were you encouraged to explore the various alternatives available to you?

No
Yes

66. Indicate the degree of satisfaction or dissatisfaction for each of the following factors related to the job. Use the number code: 1 = highly satisfied; 2 = moderately satisfied; 3 = neither satisfied or dissatisfied; 4 = moderately dissatisfied; 5 = highly dissatisfied:

Type of work performed
Rate of pay
Type of supervisor
Co-workers
Location of job
Hours of work
Vacations
Pension arrangements
Insurance

Unions
Chances for advancement
Chance to learn trade
Work related to ability
Steadiness of work
Physical conditions at work
Attitudes toward blind workers

FINANCES

67. What is your source of income?

Earned wages
Self
Family financial aid (Including direct support, estates and insurance income)
Public assistance
Aid to the Blind
Medical assistance
Social Security
SSI
Veterans Pension
Unemployment insurance
Other

68. What was your total income last year for yourself and other members of the household?

Under $1,999
$2,000 - $3,999
$4,000 - $5,999
$6,000 - $7,999
$8,000 - $9,999
$10,000 - $11,999
$12,000 - $13,999
$14,000 - $15,999
Over $16,000

LIVING ARRANGEMENTS

69. Are you living in a:

Private house
Apartment
Public housing
Furnished room
Hotel
Boarding home
Home of a relative
Other

70. Are you happy about the place where you live?

No
Yes
Specify why

SOCIAL

71. Do you belong to a church?

No
Yes

72. (If yes to No. 71) How often do you attend church?

Never
Several times a year
Once a month or so
Every two or three weeks
Once a week
Twice a week or oftener

73. Do you have a hobby?

No
Yes
If yes, specify

74. Are you a member of any organizations?

Civic
Church
Other
None

75. Do you attend meetings?

Regularly
Once in a while
Never or practically never
Don't know

76. Which of the following would you rather do? (Circle as many as you like.)

Watch television
Listen to the radio
Read a book
Visit friends
Go to a movie

Go to taverns
Dance
None of these
Other
Outdoor activities

77. What kinds of sports do you like best?

Swimming
Hiking
Bowling
Skating
Ball playing
Other

78. In general, do you prefer to do things alone, or with other people?

Alone
With others
Both
Makes no difference
Don't know

79. Do you have a special friend?

No
Yes

80. How often do you have contact with this friend?

Several times a week
Once a week
Few times a month
Once a month
Less than once a month
Live in same household

81. Are the majority of your friends sighted or visually handicapped?

Sighted
Visually handicapped
Mixed
No friends

82. Do you have contact with your neighbors?

No
Yes

83. Do you have contact with your family?

No
Yes

If yes, how often?

84. If you meet someone you enjoy, are you likely to initiate future contacts?

No
Yes

85. By what method do you read?

Ordinary print
Braille
Records - tapes
Sighted reader
Other

86. Is there some advice you would like to give to other blind people who wanted to enter a particular profession or occupation?

INDEPENDENCE/DEPENDENCE FUNCTIONING

1. If you were looking for a new job, how would you go about this?

   Independent
   Semi-independent
   Dependent

2. If you were ill and had to stay home from work, what would you do about your job?

   Independent
   Semi-independent
   Dependent

3. How do you handle your paycheck?

   Independent
   Semi-independent
   Dependent

4. If you met someone at work or at a park and liked them, would you see that person again? How would you do that?

   Independent
   Semi-independent
   Dependent

5. Do you travel alone or with someone? Do you use an aid?

   Independent
   Semi-independent
   Dependent

ATTITUDINAL SURVEY

Please listen to the following statements carefully and decide how you feel about them. You will agree with some statements, and you will disagree with others. With some you will agree or disagree strongly. There are no right answers and no wrong answers.

The blind have a whole set of feelings which cannot be understood by most sighted people.

SA (4) A (3) D (2) SD (1)

I try to avoid coming into direct contact with sighted persons.

SA (4) A (3) D (2) SD (1)

My family did not accept me because of my visual disability.

SA (4) A (3) D (2) SD (1)

Friction and other difficulties are to be expected if blind workers are employed with sighted workers.

SA (4) A (3) D (2) SD (1)

No matter how nicely sighted people treat a blind man, they don't really mean it.

SA (4) A (3) D (2) SD (1)

Blind people need to have unusual personality assets in order to be successful.

SA (4) A (3) D (2) SD (1)

There are too many sighted persons working in organizations for the blind.

SA (4) A (3) D (2) SD (1)

I was not accepted by my friends because of my visual disability.

SA (4) A (3) D (2) SD (1)

Most sighted people have prejudice against blind persons.

SA (4) A (3) D (2) SD (1)

A blind person would be better off if he chose mostly blind friends.

SA (4) A (3) D (2) SD (1)

I was most accepted by my relatives because of my visual disability.

SA (4) A (3) D (2) SD (1)

A blind person is severely handicapped in gaining employment.

SA (4) A (3) D (2) SD (1)

Most sighted people are always looking for ways to cheat and exploit blind persons.

SA (4) A (3) D (2) SD (1)

The blind do not get their fair share of what they produce.

SA (4) A (3) D (2) SD (1)

Most sighted people who work with the blind are not really interested in helping them.

SA (4) A (3) D (2) SD (1)

Real friends are hard to find among the sighted.

SA (4) A (3) D (2) SD (1)

Each of us can make real progress only when visually handicapped persons as a group make progress.

SA (4) A (3) D (2) SD (1)

A good community program for blind persons should provide a place where blind persons can get together with the sighted for social affairs.

SA (4) A (3) D (2) SD (1)

The main responsibility for the welfare of the blind is up to the blind themselves.

SA (4) A (3) D (2) SD (1)

Every blind man is out for himself at the expense of everyone else.

SA (4) A (3) D (2) SD (1)

It is better for the blind to be in institutions with their own kind.

SA (4) A (3) D (2) SD (1)

I try to keep myself informed about what is happening among the visually handicapped as much as possible.

SA (4) A (3) D (2) SD (1)

Most blind persons can be trusted.

SA (4) A (3) D (2) SD (1)

With proper training a blind person can do just about anything a sighted person can do.

SA (4) A (3) D (2) SD (1)

A good way for blind people to promote their cause is to band together and present a united front.

SA (4) A (3) D (2) SD (1)

I think it is important for a blind person to associate with sighted people as much as he can.

SA (4) A (3) D (2) SD (1)

It is best for blind persons to have their own organizations equipped to deal with their special problems.

SA (4) A (3) D (2) SD (1)

Each blind person should mind his own business, letting others take care of theirs.

SA (4) A (3) D (2) SD (1)

Most blind people prefer to be with their own kind.

SA (4) A (3) D (2) SD (1)

What is good for the blind as a whole is good for me.

SA (4) A (3) D (2) SD (1)

One of the nicest things about the blind is that relationships among them are most cooperative and friendly.

SA (4) A (3) D (2) SD (1)

Most blind persons can take care of themselves without others' help.

SA (4) A (3) D (2) SD (1)

APPENDIX C

ADDITIONAL CATEGORIES

1. Question 10:

   Parents
   Friends
   Relatives

2. Question 14:

   Albinism
   Coloboma
   Cataracts
   Glaucoma
   Nearsightedness
   Optic nerve damage
   Not known
   Retinal disorder
   Retinitis Pigmentosa
   Retrolental Fibroplosia
   Scleritis
   Sympathetic Ophthalmitis
   Subdural Hematoma

3. Question 17:

   1960 - 1965
   1966 - 1970
   1971 - 1975

4. Question 20:

   Public school
   Special education at public schools
   Attended other schools for the blind
   None

5. Question 21: Categories were:

   BA - BS
   MSW
   AA
   None

6. Question 33:

   Include vocational preparation
   Remain an academic oriented institution
   Individualize programs
   Attend public schools in conjunction with WSSB
   Upgrade WSSB to public school standards
   Improve social climate
   More preparation in living skills
   No suggestions

7. Question 45: Categories were:

   OVTI
   Idaho Commission for the Blind
   Perkins
   Developmental Center for Adult Handicapped
   None

   b. Categories were:

   Job placement
   Vocational skills
   Living skills
   Mobility

8. Question 46:

   Vocational Training
   Living skills
   None

9. Question 53:

   More academic preparation
   More vocational preparation
   More social preparation
   More living skills preparation
   More education after WSSB
   Attended public school
   More personal motivation
   Improved vocational training
   No changes

10. Question 55:

    Personal contact with employer
    A friend
    State Services for the Blind
    Employment agencies
    Want ads, journals
    State civil service
    Musicians union, booking agent
    None

11. Question 56:

    Direct application
    Vocational rehabilitation counselor
    State registrar
    Not looking

12. Question 83:

    Daily
    Weekly
    Monthly
    Occasionally
    Never

13. Question 86:

    Motivation and determination is most important
    Stress positive points
    Learn basic skills in profession
    Know one's abilities
    Become knowledgeable of resources available
    None

APPENDIX D

TABLE I

RACE OF RESPONDENTS

	Number	Percentage
White	39	100
Negro	0	0
Other	0	0
Total	39	100

TABLE II

BIRTHPLACE

	Number	Percentage
United States	38	97
Phillipines	1	3
Total	39	100

TABLE III

RELIGIOUS AFFILIATION

	Number	Percentage
Catholic	5	13
Protestant	17	44
Jewish	0	0
Other	0	0
None	17	44
Total	39	101*

* Total > 100% due to rounding error

TABLE IV

NUMBER OF CHILDREN

	Number	Percentage
None	30	77
1	1	3
2	6	15
3	2	5
Total	39	100

TABLE V

PRIMARY MEDICAL EYE DIAGNOSIS

	Number	Percentage
Albinism	2	5
Cataracts	3	8
Coloboma	1	3
Glaucoma	3	8
Near sighted	1	3
Optic nerve damage	8	20
Retinal disorder	3	8
Retinitis Pigmentosa	2	5
Retrolental Fibroplasia	9	23
Scleritis	1	3
Sympathetic Ophatomis	1	3
Subdural Hematoma	1	3
Not known/don't know	4	10
Total	39	102*

* Total > 100% due to rounding error

TABLE VI

USE OF GLASSES AND LOW VISION AIDS

	Number	Percentage
Yes	15	38
No	22	56
Both	2	5
Total	39	99*

* Total < 100% due to rounding error

TABLE VII

MODE OF TRAVEL

	Number	Percentage
Aid of a cane	19	49
Guide dog	3	8
A sighted person	2	5
No aids	14	36
Other	1	3
Total	39	101*

* Total > 100% due to rounding error

TABLE VIII

MODE OF READING AND WRITING

	Number	Percentage
Stylus	19	20
Braille writer	23	25
Large print type	9	10
Regular print type	11	12
Abacus	3	3
Talking book machine	24	26
Sighted reader	4	4
Total	93	100

TABLE IX

VOCATIONAL COURSES RECEIVED RELATED TO EMPLOYMENT

	Number	Percentage
Typing / secretarial	9	23
Piano tuning/music	3	8
Auto and small engine mechanics	3	8
Computer programing	1	3
Math	1	3
Custodial training	1	3
Broadcasting	1	3
Business law	1	3
Hotel/motel training	1	3
Sign language	1	3
Home economics	1	3
Woodwork/arts and crafts	1	3
Received none	9	23
No response	7	18
Total	40	107**

* Multiple response categories

** Total > 100% due to rounding error

TABLE X

ACTIVITIES AND HOBBIES

	Number	Percentage
Watch television	20	10
Listen to radio	27	13
Read a book	28	14
Visit friends	36	17
Go to a movie	19	9
Go to taverns, play pool	14	7
Dance	15	7
Electronics, amateur radio, musical instruments, music	17	8
Arts and crafts	6	3
Outdoor activities	20	10
Home economics	5	2
Auto mechanics	1	1
Total	208	101**

* Multiple response categories

** Total > 100% due to rounding error

TABLE XI

SPORTS*

	Number	Percentage
Swimming	25	21
Hiking	22	19
Bowling	28	24
Skating	4	3
Ball playing	11	9
Horseback riding, biking	6	5
Fishing	12	10
Skiing	7	6
Hockey	1	1
Gymnastics/weight lifting	2	2
Total	118	100

* Multiple response categories

TABLE XII

ATTITUDINAL SURVEY

State-ment No.	Strongly Agree No.	%	Agree No.	%	Disagree No.	%	Strongly Disagree No.	%	No Answer No.	%	Row Total
1	3	8	16	41	11	28	8	21	1	3	39
2			5	13	3	8	30	77	1	3	39
3			3	8	9	23	25	64	2	5	39
4	1	3	10	26	13	33	12	31	3	8	39
5			2	5	8	21	28	72	1	3	39
6	1	3	10	26	9	23	17	44	2	5	39
7	8	21	8	21	15	38	7	18	1	3	39
8			2	5	12	31	23	59	2	5	39
9	1	3	12	31	17	44	8	21	1	3	39
10					7	18	31	79	1	3	39
11			2	5	13	33	23	59	1	3	39
12	9	23	12	31	11	28	6	15	1	3	39
13	3	8	3	8	16	41	16	41	1	3	39
14	2	5	8	21	14	36	13	33	2	5	39
15	1	3	4	10	16	41	16	41	2	5	39
16	1	3	6	15	5	13	24	62	3	8	39
17	5	13	6	15	18	46	8	21	2	5	39
18	6	15	20	51	10	26	2	5	1	3	39
19	10	26	21	54	5	13	2	5	1	3	39
20			2	5	6	15	28	72	3	8	39
21	4	10	1	3	3	8	30	77	4	10	39
22	4	10	13	33	19	49	2	5	1	3	39
23	4	10	21	54	8	21	3	8	3	8	39
24	20	51	15	38	1	3	2	5	1	3	39
25	10	26	18	46	8	21			3	8	39
26	21	54	15	38	1	3			2	5	39
27	9	23	18	46	7	18	2	5	3	8	39
28	4	10	15	38	12	31	4	10	4	10	39
29	3	8	11	28	14	36	8	21	3	8	39
30	2	5	14	36	13	33	8	21	2	5	39
31	3	8	14	36	11	28	5	13	6	15	39
32	6	15	23	59	6	15	2	5	2	5	39

TABLE XIII

LIST OF VARIABLES

VARIABLE	QUESTION NO.	I=INDEPENDENT D=DEPENDENT
Sex	1	I
Age	3	I
Onset of blindness	11	I
Degree of blindness	12	I
Year graduated	17	I
Highest grade after WSSB	42	I
Working to capacity and ability	49	D
Independent-Dependent Scale	7-11	D
Vocational Training	44,45	I
Success	48	D
Special education/public schools	20	I